



# SERVICES FOR STUDENTS WITH DISABILITIES IN CALIFORNIA PUBLIC HIGHER EDUCATION 1992

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CALIFORNIA  
POSTSECONDARY  
EDUCATION  
COMMISSION

## Summary

In 1990, in response to Assembly Bill 746 (Hayden 1987), the Commission issued its first report on students with disabilities in California public higher education. That document consisted solely of the commission's analysis of reports by the University of California, the California State University, and the California Community Colleges on this subject.

This second document, which also responds to AB 746, deals with four different aspects of disabled student services:

- Part One provides background on the State's concern for students with disabilities and the Commission's work in this area
- Part Two updates the Commission's 1990 report by describing the information contained in the systems' new biennial reports and drawing conclusions regarding their programs for disabled students based on that information
- Part Three evaluates information on learning disabled students in the California Community Colleges for the four year period from 1987-88 through 1990-91. It is the Commission's final analysis of this topic called for in Supplemental Language to the 1988 Budget Act.
- Finally, Part Four describes programs offered by the State's Department of Rehabilitation for disabled students in California's colleges and universities

The Commission adopted this report at its meeting of August 24, 1992, on recommendation of its Educational Policy and Programs Committee. Additional copies of the report may be obtained by writing the Commission at 1303 J Street, Fifth Floor, Sacramento, CA 95814-2938.

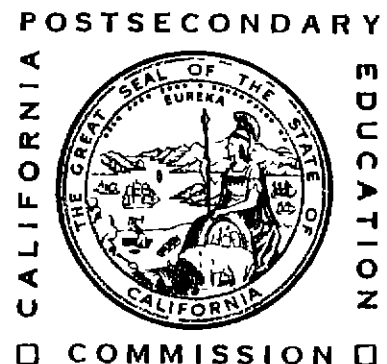
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*On the cover* A hearing-impaired student learns graphic arts technology at San Diego City College

# SERVICES FOR STUDENTS WITH DISABILITIES IN CALIFORNIA PUBLIC HIGHER EDUCATION, 1992

*The Second in a Series of Biennial Reports  
to the Governor and Legislature  
in Response to Assembly Bill 746  
(Chapter 829, Statutes of 1987)*

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION  
1303 J Street • Fifth Floor • Sacramento, California 95814-2938





**COMMISSION REPORT 92-21**  
**PUBLISHED AUGUST 1992**

Contributing Staff Kevin G Woolfork

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**Origins of the report**

Chapter 829, of the Statutes of 1987 -- adopted by Assembly Bill 746 (Hayden), which is reproduced in Appendix A of this report -- directs the University of California, the California State University, and the California Community Colleges to coordinate their planning and development of programs for students with disabilities and to develop and implement a system for evaluating State-funded programs and services for these students on each campus at least every five years. It calls on the three systems to prepare biennial progress reports on their efforts to implement State policy and on the California Postsecondary Education Commission to comment on these reports to the Governor and Legislature

AB 746 is the most recent legislative step in the process of ensuring special services for California's college and university students with disabilities, but California has long maintained a commitment to provide special services to disabled persons enrolled in its educational institutions. At the postsecondary level, efforts to better develop these services were made a higher priority due to the passage of the 1973 Federal Rehabilitation Act, Section 504 by Congress. Section 504 of that Act states that "no otherwise qualified handicapped person, shall, on the basis of handicap, be excluded from participation in, be denied benefits of, or otherwise be subjected to discrimination under any program or activity that receives or benefits from federal financial assistance."

In 1976 the State passed Assembly Bill 77 (Lanterman), which provided State funding for instructional services and supports for disabled students in the community colleges. In 1978, the Postsecondary Education Commission called for the establishment of formal, coordinated programs of support for disabled students in all the State's public colleges and universities, when it issued its report, *A State Plan for Increasing the Representation of Students with Disabilities in Public Postsecondary Education*. As the result of much study during 1979 and the early

1980s, in 1983 the Commission issued its report *Services for Students with Disabilities in California Public Higher Education*, in which it made recommendations regarding legislative policies, program funding and operation, and the creation of campus and systemwide advisory committees to oversee the disabled students' programs

Continued legislative concern about disabled students' relatively low rates of graduation from high school and postsecondary education led to the passage of Assembly Concurrent Resolution 3 in 1985, which established the State's goal that the proportion of disabled students graduating from high school who are eligible for admission into public postsecondary education -- as well as the proportion of disabled students eventually graduating from these institutions -- are to be similar to non-disabled students

ACR 3 focussed on four means of accomplishing this goal:

- 1 Developing ways to improve academic and vocational preparation of disabled students in secondary schools,
- 2 Establishing a long-term approach to funding disabled student services in the State's public postsecondary education systems,
- 3 Collecting the data necessary for evaluating and planning disabled students' services in postsecondary education, and
- 4 Providing a mechanism for evaluating the progress of the postsecondary systems and institutions in improving their services to disabled students

The three public systems and the Commission established an Intersegmental Planning Committee on Assembly Concurrent Resolution 3, which issued its report, *Expanding Educational Opportunities for Students with Disabilities*, in December 1986. Many of the recommendations of that committee were implemented through AB 746, and the committee was thereafter reconstituted as the AB 746 Interseg-

mental Planning Committee on Disabled Student Services This committee, whose current members are listed in Display 1, has worked with Commission staff to plan this and subsequent biennial reports in response to AB 746. The Commission is grateful to them for their effort and assistance

*DISPLAY 1 Members of the Planning Committee on Disabled Student Services, Reconstituted Under Assembly Bill 746*

Kathy Mohini  
University of California, Los Angeles

Albert Salgado, Chancellor's Office  
California Community Colleges

David Sanfilippo  
California State University, Long Beach

Catherine Campisi  
California State Department of Rehabilitation

Karen Halliday, Chancellor's Office  
California Community Colleges

Judy Osman, Office of the Chancellor  
The California State University

Steve Handal, Office of the President  
University of California

Jonathan Brown  
Association of Independent California Colleges  
and Universities

Dave Jolly  
California Department of Education

Judy Day  
California Department of Finance

Stuart Marshal  
Office of the Legislative Analyst

Kevin G. Woolfork, *Convenor*  
California Postsecondary Education Commission

Source: California Postsecondary Education Commission

### **Background on students with disabilities**

California's three public systems of higher education currently provide services to more than 64,000 students with disabilities annually. While each system has its own internal operating definitions for its disabled students' programs and services, six

categories of disability can be distinguished for which all three systems provide special services.

*Physical/Mobility Impairment* This disability covers any limitation in locomotion or motor function that indicates a need for supportive services or programs. Students included in this category are those who have motor function problems preventing them from lifting or carrying items normally used in an academic setting, such as books and supplies. Services provided to these students include on-campus mobility assistance to and from classes and related educational activities, special parking spaces and arrangements, manual manipulation services for classroom and related academic activities.

*Hearing Impairment* This disability involves a limitation in the process of hearing that impedes the educational process and necessitates the procurement of special supportive services that include, but are not limited to, oral or sign language interpreters. Other services provided to hearing impaired students include reader interpreter services to coordinate and provide access to information required for academic participation, and test- and note-taking facilitation.

*Visual Limitation.* This disability covers the existence of blindness or partial sight to the degree that it impedes the educational process and necessitates procurement of supportive services or programs. Services provided to visually impaired students include transcription services, such as providing Braille and large print materials, on- and off-campus registration assistance, and supplemental specialized orientation to acquaint them with the campus environment.

*Communication Disability* This disability includes limitations in the processes of speech and/or hearing that impedes the educational process. Services provided to communication-impaired students include specialized tutoring, adapting tests for them, proctoring tests taken by them, and provision of adaptive educational equipment. Students needing interpreting services are not served in this category but are provided with other supportive special services.)

*Learning Disability:* This category refers to a group of disorders that occur in people with average to superior intelligence and are presumed to be due to



central nervous system dysfunction (These disorders are discussed in greater length on page 13) Services provided to learning-disabled students may include complete diagnostic assessment by the institutions to determine functional, educational, and employment levels, and specialized services not otherwise provided by the institution

*Other Disabilities* Three other classifications of disabilities for which the systems provide special services are (1) acquired brain injury, (2) developmentally delayed learner, and (3) functional limitations due to medical condition. Students in these three categories may utilize several of the services described above

- Acquired brain injured means a deficit in brain functioning that is not congenital, is medically verifiable, and has resulted in the total or partial loss of cognitive, sensory-perceptual, psychosocial, or other functioning skills
- Developmentally delayed learners are students with below average intellectual functioning, impaired social functioning, and potential for success in instructional and employment settings
- Students with functional limitations due to medical conditions include those with asthma, diabetes, acute allergies, heart conditions, or cancer

The campuses in the three public systems provide students in the "other disabilities" classification with most of the services described above for certain disabilities. They also offer more services for their disabled students than are listed above -- for exam-

ple, by providing referral and follow-up services to community agencies on behalf of these students. In addition, they offer special training to their outreach personnel in order to increase the representation of students with disabilities, and they provide on-campus activities to increase general campus awareness of students with disabilities

## Contents of the remainder of this report

The next section of this document discusses the reports provided by the University of California, the California State University, and the California Community Colleges in response to AB 746. In those reports, the systems supply information on enrollment, retention, transition, and graduation rates of disabled students, on a campus-by-campus basis, as is called for in AB 746.

Part Three evaluates information on learning disabled students in the California Community Colleges for the four-year period from 1987-88 through 1990-91. It is the Commission's final analysis of this topic called for in Supplemental Language to the 1988 Budget Act.

In Part Four, the Commission describes the work of the State Department of Rehabilitation with disabled students in postsecondary education, and the need for increased cooperation between the Department and the systems in the provision of services to these students.

## 2 *Progress of Students with Disabilities in California Public Higher Education*

### **Development of the systems' reports on their disabled students**

Through Assembly Bill 746, the Legislature called on California's three public systems of higher education to report in 1990 and biennially thereafter on their programs for disabled students and their evaluation of these programs. In January 1991, the Intersegmental Planning Committee on Disabled Student Services agreed that for their 1992 reports the systems would report on the disabled students they enrolled as of Fall 1990. Display 2 below shows the total number of disabled students they served as of that fall and the total funding of their programs for disabled students during fiscal 1990-91. Not all disabled students seek or require specialized services, however, and therefore the numbers of students in Display 2 and later displays in this report are conservative, in that they include only those students with verified disabilities who actually requested

and received assistance through campus disabled student services and programs.

In AB 746, the Legislature also asked the systems to report on the progress of their disabled students in terms of their enrollment, retention, transition, and graduation. The planning committee agreed on the following working definitions of these terms at the outset of the AB 746 reporting process:

**"Enrollment"** The number of new undergraduate and graduate students and the total enrollment for a specified fall term.

**"Continuation"** The number and percentage of students enrolled at a later time based on a given cohort of enrollees. The State University uses intervals of one year to measure continuation and, like the California Community Colleges, uses the term "persistence" to describe the proportion of students who complete a term and enroll in subsequent ones.

**DISPLAY 2** *Number of All Disabled Students Served in Fall 1990 and Total Funding of Programs for These Students in California's Three Public Systems of Higher Education During Fiscal Year 1990-91*

System of Higher Education	Number of Disabled Students Served, Fall 1990	State Funding, Fiscal 1990-91	Other Sources of Funds, Fiscal 1990-91*	Total Funding, Fiscal 1990-91
University of California	3,773	\$ 1,383,697	\$ 2,394,235	\$ 3,777,932
The California State University	7,995	7,260,652	0	7,260,652
California Community Colleges	<u>52,486</u>	<u>28,454,426</u>	<u>29,268,666</u>	<u>57,723,092</u>
Total	64,254	\$37,098,775	\$31,662,901	\$68,761,676

\* For the University of California, the bulk of "other sources of funds" are campus resources, federal grants, and certain student fees. For the California Community Colleges, "other sources of funds" include local revenues, federal grants, and various campus-generated funds.

**Note** In order to be consistent with the data cited for the other two segments, the number of community college students counted here is only those students with a primary disability. An additional 5,322 students with secondary disabilities also receive disabled student services and programs in these colleges. The community colleges use a formula to determine a weighted student count, and funding for these programs is based on this calculation and not on the number of students presented here.

**Sources** Background documents on disabled student services from the University of California, the California State University, and the Chancellor's Office of the California Community Colleges.

**"Retention"** For the University and State University, the number and percentage of enrollees who continue or graduate after five years and, for community college transfers, after three years "Retention" as defined here is the sum of "continuation" and "graduation" -- defined by the State University as "tracking" For the California Community Colleges, "retention" represents the ratio of units successfully completed to the number of units attempted

**"Transition"** The number and percentage of newly enrolled transfer students who previously attended a community college.

**"Graduation"** The number and percentage of those students who graduate in a five-year interval based on a given cohort.

In addition to providing as much information on these outcomes as they have, all three of the public systems describe in their 1992 reports their efforts in developing surveys designed to measure staff and student satisfaction with their disabled students' programs, which are also called for in AB 746

On the following pages, the Commission comments on the 1992 reports of the three systems, and it reproduces all three of these reports in Appendix B

### The University of California's report

The University of California is still in the process of developing the procedures necessary to obtain the information on its campuses' disabled students and to document their academic progress that was requested in AB 746 It has had to develop several new data elements to accommodate the reporting requirements of that statute, and it had previously informed the Commission and the planning committee of the anticipated delay in reporting this outcomes information

In its current report, the University describes its efforts on behalf of this project and includes the campus-by-campus and systemwide enrollment information on new permanently disabled students for Fall 1990 that is summarized in Display 3 below The University plans to base future retention and

**DISPLAY 3** *Number of New Students with Permanent Disabilities Enrolled at the University of California, Fall 1990, by Campus and Type of Disability\**

<u>Campus</u>	<u>Vision</u>	<u>Mobility</u>	<u>Other Functional Impairment</u>	<u>Acquired Brain Injured</u>	<u>Speech</u>	<u>Hearing</u>	<u>Other Communication Disability</u>	<u>Learning Disability</u>	<u>Campus Totals</u>
Berkeley	10	33	45	2	1	10	0	79	180
Davis	6	12	9	0	0	8	0	61	96
Irvine	7	7	5	0	1	5	0	14	39
Los Angeles	5	0	11	2	0	2	0	10	30
Riverside	6	8	7	0	0	4	0	5	30
San Diego	2	6	3	0	0	1	0	7	19
San Francisco	1	4	0	0	0	1	0	0	6
Santa Barbara	2	7	0	0	0	1	0	24	34
Santa Cruz	<u>3</u>	<u>13</u>	<u>14</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>28</u>	<u>63</u>
Totals	42	90	94	4	2	37	0	228	497

\* Included are only those students who were new to the University in Fall 1990 (i.e., first-time freshmen, transfer, and graduate/professional school students) and who identified themselves as permanently disabled by requesting services at the campus disabled student service program office

Source University of California report reproduced in Appendix B

graduation information for disabled students on these data. It anticipates that its January 1994 report will contain disabled student retention information, and it expects to provide graduation rate information in January 1996.

Display 3 shows that the largest single group of permanently disabled students who enrolled in the University during Fall 1990 were learning disabled. They accounted for 228 (46 percent) of the 497 new permanently disabled students who enrolled in Fall 1990.

In its report, the University presents extensive background on its disabled student programs, the process it uses for allocating funds to the programs, its new systemwide and campus guidelines for the operation of these programs, and the progress it is making to ensure the full physical accessibility of its campuses to students with disabilities.

### **The California State University's report**

The California State University has collected information on the number of its disabled students receiving services from the Disabled Student Services (DSS) programs since 1980, and since Fall 1983 has gathered detailed enrollment, continuation, and graduation information on its new first-time freshmen who have disabilities and receive specialized services from DSS. In its report for 1992, the State University presents campus-by-campus and systemwide enrollment, retention, continuation, transition, and graduation information for disabled students who it served in Fall 1990, and it compares these data with earlier information from Fall 1983 and Fall 1988.

Display 4 at the right shows systemwide information for the State University on the enrollment, continuation, graduation, persistence, and transition of disabled students compared to all students in these years.

The State University's nearly 8,000 students with disabilities in Fall 1990 represent 2.2 percent of its total enrollment, up from the 1.3 percent of the student body who identified themselves as disabled in Fall of 1983 and the approximately 1.6 percent of those in Fall 1988. The State University's information for Fall 1990 also shows that community col-

### **DISPLAY 4    *Number of Disabled Students and All Students Served by the California State University for Selected Academic Years***

#### **Fall Enrollment, 1983 and 1990**

	<u>1983</u>	<u>1990</u>
Disabled Students Enrolled	4,126	7,995
Total Enrollment	313,900	369,053
Disabled as Percent of Total	1.3%	2.2%

#### **Continuation and Graduation by Fall 1988 of Fall 1983 First-Time Freshmen**

	<u>Disabled Students</u>	<u>All Students</u>
Number Enrolled, Fall 1983	204	25,443
Number Continuing, Fall 1988	55	6,839
Percent Continuing, Fall 1988	27.0%	26.9%
Number Graduating by Fall 1988	44	6,219
Percent Graduating by Fall 1988	21.6%	24.4%
Persistence Rate, 1983 to 1988	48.5%	51.4%

#### **New Undergraduates and Community College Transfers, Fall 1989 and 1990**

	<u>Disabled Students</u>	<u>All Students</u>
1989 New Undergraduates	869	68,304
1989 Community College Transfers	519	28,331
1989 Transfers as Percent of Total	59.7%	41.5%
1990 New Undergraduates	988	67,230
1990 Community College Transfers	577	29,370
1990 Transfers as Percent of Total	58.4%	43.7%

#### **Continuation and Graduation by Fall 1988 of Fall 1983 Community College Transfers**

	<u>Disabled Students</u>	<u>All Students</u>
Number Enrolled, Fall 1983	365	29,682
Number Continuing, Fall 1988	27	4,126
Percent Continuing, Fall 1988	7.6%	9.2%
Number Graduating by Fall 1988	167	15,019
Percent Graduating by Fall 1988	48.9%	50.6%
Persistence Rate, 1983 to 1988	56.5%	59.8%

Source: Adapted from Tables 1-10 in the report of the California State University's reproduced in Appendix B.

lege transfer students who are disabled made up a substantial share of its total population of disabled students. Sixty percent of its disabled students that fall (as well as Fall 1989) were community college transfers, while community college transfer students as a group comprised only 40 percent of total State University enrollment at that time.

The State University compares the progress of disabled students through the system by comparing actual proportions of continuing, persisting, and graduating disabled students with expected proportions, were these students to progress at the identical rate of all students within the State University. The differences between these "actual" and "expected" numbers are minimal. For example, in terms of persistence, the State University's disabled community college transfer students achieve at rates similar to its total population of students who transfer from community colleges. Similarly, in every other case very little difference exists between the rates of continuation, persistence, and graduation for disabled students when compared to the State University's student body at large at both the systemwide and campus levels.

### The California Community Colleges' report

The California Community Colleges' AB 746 report for 1992 contains outcomes information on the retention, persistence, and grade-point averages of disabled students and all students enrolled in the State's 108 community colleges as of Fall 1989. It presents these data for students just below, at, and above the freshman year level; Display 5 at the right shows the results of these comparisons. ("Below freshman level" students are those who have not yet completed one full year of college.) The data indicate that community college students with disabilities complete courses of studies and progress to the next academic term at rates similar to the general student body. The comparisons of grade-point averages show that, on average, disabled students' grades are at or above the average rates for the entire community college student population. More recent data from 53 colleges for Fall 1990 show the same comparisons for retention rates and grade-point averages between disabled students and all students.

### DISPLAY 5 Outcomes Information for 1989-90 from the California Community Colleges Report on Disabled Students Programs and Services

Outcome and Academic Level		Disabled Students	All Students
<i>Retention</i>			
Above Freshman	( > 13 grade)	92	89
Freshman Level	( 13 grade)	89	92
Below Freshman	( < 13 grade)	86	92
<i>Persistence</i>			
Above Freshman	( > 13 grade)	76	84
Freshman Level	( 13 grade)	84	79
Below Freshman	( < 13 grade)	86	76
<i>Grade-Point Average</i>			
Above Freshman	( > 13 grade)	2.95	2.99
Freshman Level	( 13 grade)	2.38	2.08
Below Freshman	( < 13 grade)	2.05	1.90

Note: "Below freshman level" students have not yet completed one full year of college. Student outcomes are defined as follows: *Persistence* the proportion of students who completed a term and enrolled in the subsequent term; *Retention* the ratio of units successfully completed to units attempted; *Grade-point average* accumulated grades expressed numerically, with "C" equal to 2.00.

Source: California Community Colleges' Chancellor's Office report reproduced in Appendix B.

The community colleges' report also provides extensive background on the community colleges' Disabled Students Programs and Services, and the efforts of the colleges in recent years to evaluate the quality of those programs and services. It includes the results of an examination of services for students offered by the following facets of Disabled Students Programs and Services: High-Tech Centers, Learning Disabled Students Services, Services for Students with Psychological Disabilities, Developmentally Delayed Learners Services, and Hearing Impaired Students Services.

The community colleges' report also shows the total number of disabled students enrolled in the system, by campus and by disability. It bases this count on primary disabilities only, so as not to double count the more than 5,300 students in the system who receive services for both primary and secondary disabilities. Finally, the report describes the commu-

nity colleges' initial student and faculty satisfaction survey.

### **Comparability of the reports**

While each of the three systems is making a good-faith effort in collecting data and preparing its reports, one area of concern is the dissimilarities among the reports in terms of their content and organization. The reasons for these different formats and coverage are understandable. The systems are at different points in the information development process, necessitating differences in their ability to provide these data as well as in the presentation of the data, and each system seeks to compile and maintain information on its respective disabled student population in such a way as to keep any final research product useful for internal policy making.

Nonetheless, this lack of comparability of the reports makes them difficult to analyze. The Intersegmental Planning Committee on Disabled Student Services will continue to work towards agreement on the organization and substance of future reports that will enable each system to maintain sufficient system-specific characteristics to keep the report useful for its planning efforts in this area while at the same time providing comparable statewide data. In this regard, the University of California and the California Community Colleges expect to have better databases on disabled students for future AB 746 reports as they continue to develop and modify their respective information systems.

Despite these differences among the reports, all three show that the systems are providing extensive support services to their disabled students.

They also indicate that adequate funding for these services will remain a serious concern as their total number of students with disabilities increases -- an issue of particular concern to the community colleges.

### **Future reports on disabled students**

In January 1993, the first reports on the systems' surveys of staff and student satisfaction with their disabled students programs are due from the systems, following up the preliminary information on their surveys in their 1992 reports. All three systems have, at a minimum, developed survey instruments and pilot tested them. The University of California plans to administer its surveys during this spring; the California State University has developed and approved its survey instrument and plans to survey its campuses this fall, and the community colleges have already conducted one such survey for the 1990-91 academic year and are examining the results. The community colleges expect to provide information by gender and ethnicity on the staff and students surveyed.

The Commission will report on the final results of the systems' disabled student services satisfaction surveys after they are submitted in 1993, and in 1994 it will issue its next biennial report on the enrollment, retention, transition, and graduation of disabled students in the three systems. The Commission anticipates that its 1994 report will include only minimal background information on disabled students and focus instead on analyzing the specific data provided by the systems.

# 3 *Operation of the Community Colleges' Learning Disability Eligibility Model*

## Origins of this part of the report

Supplemental Report Language to the 1988 State Budget Act (reproduced in Appendix C) directed the California Community Colleges to provide instructional services to students with learning disabilities and to continue the statewide implementation of their eligibility model for determining students' needs for learning disability services. The language directed the Chancellor's Office to report on the gender, age, and ethnicity of learning disabled students for the 1987-88 and 1988-89 academic years and later for the full stretch of academic years from 1987-88 through 1990-91, and it directed the Commission to review and comment on those studies.

The major concern of the Legislature in calling for the Chancellor's Office's reports and the Commission's comments on those reports was the possibility of bias in the community colleges' process of referring students and then assessing their eligibility for learning disabled services. To briefly describe this process

- 1 Students voluntarily seek referral for determination of possible learning disabilities and are then scheduled for assessment, these students are classified as 'referred' for determination of learning disabilities
- 2 The colleges then administer a seven-component assessment process to determine whether a stu-

dent has a learning disability; and those who do are then classified as "identified as eligible" for these services.

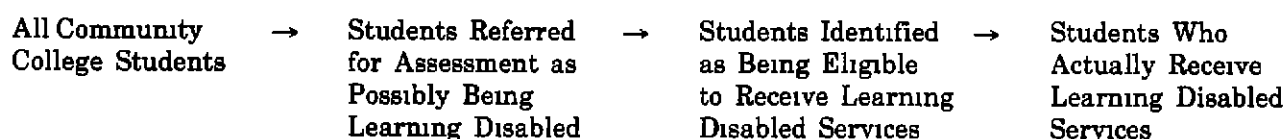
- 3 Finally, those students determined to be learning disabled under this process and who choose to accept these services are classified as "served" as learning disabled. Thus all students identified as "eligible" who request learning disability services are included in the "served" category

Display 6 below summarizes the three-step process, which the community colleges term the "Learning Disabilities Eligibility Determination Model." To determine whether bias exists in the operation of this model, the Commission has defined and measured "bias" as statistically significant over- or under-representation of students from demographic groups in the category "served" as learning disabled, compared to the categories 'referred' for determination of possible learning disabilities and "identified as eligible" for learning disabled services.

## *The Commission's two earlier reports on the community colleges' eligibility model*

In January 1989, the Commission issued its comments on the initial learning disabilities report from the Chancellor's Office for the 1987-88 academic year. That first Commission report -- *Comments on the Community College's Study of Stu-*

**DISPLAY 6** *Process of Selecting Community College Students Who Receive Learning Disabled Services, Termed the "Learning Disabilities Eligibility Determination Model"*



Source: California Postsecondary Education Commission

*dents with Learning Disabilities* -- provided extensive background on learning disabilities and how the community colleges' learning disabilities assessment process functions. The Commission concluded in that report that the proportions of community college students referred, identified, and served by this model did not show patterns of bias, either by age, ethnicity or gender. The Commission raised several questions about the student ethnicity percentages, however, and suggested comparisons with other learning disabled client groups.

The Chancellor's Office's second report on learning disabilities services provided information in response to the Commission's earlier concerns, along with data for the 1989-90 academic year. To review both of those reports, in January 1990 the Commission convened an advisory committee of interested state officials and persons with expertise in the field of learning disabilities whose members are listed in Display 7 below. After careful study of the information in both of the reports, that committee concluded that the data showed no patterns of bias in the

operation of the eligibility model. Based on the conclusions of the committee and the staff's two years of study on this subject, the Commission concluded in its April 1990 report, *Comments on the California Community Colleges 1989 Study of Students with Learning Disabilities*, that the eligibility model continued to show no evidence of gender, age, or racial/ethnic bias in its design or implementation by the campuses. (Appendix D of this report reproduces pertinent sections of the Commission's initial 1989 and follow-up 1990 Commission reports.)

*Contents of this final report  
on the eligibility model*

The remaining sections of this part of the report explain the nature of learning disabilities, summarize information on the operation of the eligibility model from 1987-88 through 1990-91, and explain why the Commission concludes that no evidence exists of bias in the design or implementation of the model during all four years.

**DISPLAY 7** *Advisory Committee to Review the Learning Disabilities Studies of the California Community Colleges*

Richard Griffiths, Vice President  
California Association of Postsecondary  
Education for the Disabled

Christine O'Dell  
Learning Disabilities Specialist  
President's Office, University of California

Daryl Mellard  
Consultant to the Chancellor's Office  
University of Kansas

Karen Halliday  
Disabled Student Programs  
and Services Specialist  
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California Community Colleges

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## **The nature of learning disabilities**

"Learning Disabilities" is a phrase that refers to the multifaceted group of disorders evidenced by significant difficulties in the acquisition and use of speaking, reading, writing, listening, reasoning, and other functions related to the processing of information. Even though these disabilities may exist concomitantly with other handicapping conditions -- such as visual or hearing impairment -- or with environmental influences like cultural or language differences, they are not the direct result of any of those conditions or influences

Title V of the State Education Code, along with other State and federal manuals, defines a learning disability as follows:

A persistent condition of presumed neurological dysfunction which may also exist with other disabling conditions. This dysfunction continues despite instruction in standard classroom situations. Learning disabled adults, a heterogeneous group, have common attributes

- Average to above average intellectual ability;
- Severe difficulties in processing information;
- Substantial aptitude-to-achievement discrepancies;
- Measured achievement in an instructional or employment setting; and
- Demonstrated level of personal independence and responsibility expected for his or her peer group

Learning disabilities occur in people with average to superior intelligence and are presumed to be due to central nervous system dysfunction. Although they are often confused with other disabilities, they are quite separate and specific from others. These disorders are often called "hidden handicaps" because they become apparent only in very specific academic or work situations. For example, some people with learning disabilities may see or read words backwards or invert letters, while others have difficulty following sequences of directions. In the past, labels such as "dyslexia" were used to categorize specific learning disabilities. However, these terms -- although convenient -- are no longer frequently used because they do not accurately de-

scribe the various manifestations of learning disabilities

Another term that was used in the past to describe learning disabled persons was "developmentally delayed learners." Learning disabled students, however, differ substantially from developmentally delayed persons, particularly in terms of measured intelligence. While developmentally delayed learners generally demonstrate below-average measured intelligence and show only "potential" for future academic and employment success, learning disabled persons demonstrate average to above-average measured intelligence and a proven record of ability and achievement in academic and job settings. Indeed, the most commonly agreed-upon characteristic of students with learning disabilities is that they are not achieving at a level that would be expected of them, given their demonstrated competence

## **Demographic characteristics of 1989-90 and 1990-91 learning disabled students**

The Chancellor's Office submitted separate reports on the community colleges' learning disabled student services during the 1989-90 and 1990-91 years for this final Commission report on these services. Appendix E reproduces both of those reports.

The number of students referred for learning disability determination is the most important number in those reports, since referral is the first step in the process of determining eligibility to receive services for learning disabilities. Comparisons of "referred" students with those who are determined "eligible" to receive services and, finally, with those who are "served" as learning disabled shows how students progress through the entire eligibility process. Comparisons of these three classifications of students with learning disabilities -- referred, identified as eligible, and served -- by age, gender, and ethnicity show the impact of the eligibility model on these different groups once these students are involved in the learning disability determination process.

- The age breakdowns of students referred for determination of possible learning disabilities in 1989-90 and 1990-91 were fairly close to their

proportional representations in the community college student body at large for six of the seven age categories. As has been the case since 1987-88, however, students in the age category of 50 and over were greatly under-referred for determination

- In terms of gender, just over 56 percent of community college students are female. In 1989-90, 57.2 percent of the students referred for learning disability determination were female, as were 57.7 percent in 1990-91.
- Finally, in terms of race/ethnicity, the data show that Asian/Pacific Islander and Filipino students were referred for determination of possible learning disabilities at only one quarter the rate of their proportion of all community college students. In contrast, White students made up nearly two-thirds of the students referred for learning disability determination but represented only about 53 percent of total community college enrollments. The numbers for Blacks, Latinos, American Indians, and Other students show they were referred at rates generally similar to their overall proportions of community college students.

The 1989-90 and 1990-91 data on the age, gender, and ethnicity of community college students identified as eligible to receive learning disabilities services and then actually served show similar patterns: lower than anticipated representation among the identified and served students of older students and Asian/Pacific Islander and Filipino students, and higher than anticipated representation of younger and White students. As a result, the operation of the learning disabilities eligibility model again shows no evidence of age, gender, or racial/ethnic bias for those years.

#### Four years of learning disabilities information

Last December, the Chancellor's Office published *Learning Disabilities Referrals, Eligibility Outcomes, and Services 1987-1991: A Four Year Summary*, which is reproduced in Appendix F. Displays 8, 9, and 10 on the following three pages, are adapted from that report and show the proportional

representation, in terms of age, gender, and ethnicity, respectively, of students who were referred, identified as eligible, and served as learning disabled for each of the four years as well as total community college enrollment during those years for these age, gender, and racial/ethnic categories. The displays show that over all four years, virtually no statistically significant differences have occurred between the proportions of the subgroups who were "referred" for learning disability assessment and the proportions of these referred students who were later "identified as eligible" and finally actually "served" as learning disabled.

- As an example of the statistical consistency of referral rates, students aged 30-49 -- the largest age group among community college students in general as well as among learning disabled students -- accounted for 31.7 percent of all students referred for learning disability determination in 1987-88, 32.1 percent in 1988-89, 34.2 percent in 1989-90, and 34.4 percent in 1990-91, compared to between 30.4 and 31.4 percent of all community college students over those years. In contrast, the age group of 50-year olds and older students, who made up between 11.2 and 11.4 percent of all community college students during those years, comprised only 3.6, 3.4, 3.1, and 3.2 percent of all students referred for assessment as learning disabled in each of those years.
- The gender information is similarly consistent for the community colleges' learning disabled students. Throughout the four years of data, females make up a larger share of the total student body, and each learning disability classification, than males.
- As an example of race/ethnicity data, Blacks constituted 9.1 percent of the "referred" population in 1987-88, 9.4 percent in 1988-89, 9.9 percent in 1989-90, and 10.5 percent in 1990-91, compared to between 7.1 and 6.6 percent of all community college students over those years.

As noted earlier, the most important statistical differences in proportional representation of groups of community college learning disabled students, by age, race/ethnicity and gender, are the rates at which they are referred for determination of possible learning disabilities. The reason is that students have to first be referred for learning disability assessment in order to be eligible to receive State-

**DISPLAY 8** *Age of All, Referred, Eligible, and Served Students During 1987-88 Through 1990-91*

Year and Characteristic	Total Community College Enrollment		Students Referred for Learning Disability Assessment		Students Identified as Eligible to Receive Services		Students Receiving Learning Disability Services	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>1987-1988</b>								
16-17	31,610	2.5%	184	2.2%	119	2.24%	--	--
18	98,624	7.8	816	9.9	520	9.79	--	--
19	103,682	8.2	941	11.4	611	11.51	--	--
20-24	308,515	24.4	2,123	25.7	1,363	25.67	--	--
25-29	195,983	15.5	1,286	15.6	821	15.46	--	--
30-49	384,380	30.4	2,622	31.7	1,676	31.56	--	--
50-Over	141,614	11.2	295	3.6	200	3.77	--	--
Missing	9,024							
Total	1,273,432	100.0%	8,267	100.0%	5,310	100.0%		
<b>1988-1989</b>								
16-17	28,515	2.16%	231	2.4%	164	2.66%	168	2.63%
18	105,668	7.99	988	10.3	680	11.03	691	10.83
19	111,624	8.44	1,141	11.9	764	12.40	788	12.35
20-24	316,338	23.92	2,326	24.2	1,433	23.25	1,489	23.33
25-29	202,838	15.34	1,499	15.6	978	15.87	979	15.34
30-49	406,791	30.76	3,084	32.1	1,943	31.53	2,043	32.01
50-Over	150,735	11.40	325	3.4	201	3.26	225	3.52
Total	1,322,509	100.0%	9,594	100.0%	6,163	100.0%	6,383	100.0%
<b>1989-1990</b>								
16-17	Data on the ages of all students were not reported in these categories		155	1.4%	106	1.5%	117	1.7%
18			1,120	10.1	721	10.5	723	10.3
19			1,341	12.1	838	12.2	847	12.0
20-24			2,587	23.4	1,563	22.7	1,621	23.0
25-29			1,719	15.6	1,067	15.5	1,098	15.6
30-49			3,776	34.2	2,374	34.5	2,424	34.4
50-Over			341	3.1	209	3.0	220	3.1
Total	1,407,694	100.0%	11,039	100.0%	6,878	100.0%	7,050	100.0%
<b>1990-1991</b>								
15-under	13,553	0.97%	--	--	--	--	--	--
16-17	29,827	2.13	149	1.2%	109	1.4%	95	1.2%
18	95,911	6.85	1,236	10.3	868	11.3	861	10.9
19	116,579	8.32	1,376	11.5	899	11.7	928	11.8
20-24	348,348	24.87	2,831	23.7	1,820	23.6	1,808	23.0
25-29	210,832	15.05	1,859	15.6	1,186	15.4	1,223	15.5
30-49	440,336	31.44	4,107	34.4	2,570	33.3	2,687	34.2
50-Over	145,294	10.37	387	3.2	259	3.4	266	3.4
Missing	--	--	5	0.0	5	0.0	5	0.0
Total	1,400,680	100.0%	11,950	100.0%	7,715	100.0%	7,873	100.0%

**Note** The number of students served as learning disabled is greater than the number eligible because some students receive learning disabled services outside of the standard eligibility determination process

**Source** Adapted from Table 1 on page 4 of the Chancellor's Office's report reproduced in Appendix F

**DISPLAY 9 Gender of All, Referred, Eligible, and Served Students During 1987-88 Through 1990-91**

Year and Characteristic	Total Community College Enrollment		Students Referred for Learning Disability Assessment		Students Identified as Eligible to Receive Services		Students Receiving Learning Disability Services	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>1987-1988</b>								
Women	705,225	56.7%	4,346	52.5%	2,685	50.55%	--	--
Men	538,558	43.3	3,937	47.5	2,627	49.45	--	--
Unknown	20,626	--	--	--	--	--	--	--
Total	1,264,409	100.0%	8,283	100.0%	5,312	100.0%		
<b>1988-1989</b>								
Women	744,633	56.30%	5,228	54.5%	3,248	52.7%	3,361	52.66%
Men	573,066	43.33	4,366	45.5	2,915	47.3	3,022	47.34
Unknown	4,810	0.36	--	--	--	--	--	--
Total	1,322,509	100.0%	9,594	100.0%	6,163	100.0%	6,383	100.0%
<b>1989-1990</b>								
Women	790,632	56.16%	6,319	57.2%	3,789	55.1%	3,959	56.2%
Men	609,504	43.30	4,720	42.8	3,089	44.9	3,091	43.8
Unknown	7,558	0.54	--	--	--	--	--	--
Total	1,407,694	100.0%	11,039	100.0%	6,878	100.0%	7,050	100.0%
<b>1990-1991</b>								
Women	784,583	56.01%	6,895	57.7%	4,272	55.4%	4,457	56.6%
Men	610,936	43.62	5,055	42.3	3,443	44.6	3,416	43.4
Unknown	5,161	0.37	--	--	--	--	--	--
Total	1,400,680	100.0%	11,950	100.0%	7,715	100.0%	7,873	100.0%

Note The number of students served as learning disabled is greater than the number eligible because some students receive learning disabled services outside of the standard eligibility determination process

Source Adapted from Table 2 on page 5 of the Chancellor's Office's report reproduced in Appendix F

funded services for learning disabilities. Display 11 shows the demographic categories with the largest percentage differences between their proportion of the total community college student body and their proportions of all students referred for assessment of learning disabilities. It depicts the same patterns noted in all previous data.

- In terms of significantly low rates, Asian/Pacific Islander and Filipino students were referred for learning disability determination at lower rates, statistically, than what would be anticipated given their representation in the community colleges' student body as a whole. In general, the

size of these two ethnic groups share of the "referred" group was only one-third to one-fourth the size of their share of the total community college student body. In addition, students over the age of 50 were consistently referred for learning disability determination at less than one-third the rate they are enrolled in the community colleges. These students are referred at less than one-third the rate they are enrolled in the community colleges.

- In terms of significantly high rates, White students consistently made up a larger share of the referred population than of the community col-

**DISPLAY 10 Race/Ethnicity of All, Referred, Eligible, and Served Students, 1987-88 Through 1990-91**

Year and Characteristic	Total Community College Enrollment		Students Referred for Learning Disability Assessment		Students Identified as Eligible to Receive Services		Students Receiving Learning Disability Services	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>1987-1988</b>								
Asian/Pacific Islander	122,648	9.7%	175	2.1%	90	1.79%	--	--
Black	89,773	7.1	751	9.1	417	8.28	--	--
Filipino	31,610	2.5	52	0.6	25	0.50	--	--
Latino	189,661	15.0	1,205	14.5	718	14.25	--	--
Native American	15,173	1.2	109	1.3	65	1.29	--	--
White	788,991	62.4	5,502	66.4	3,723	73.90	--	--
Other	26,553	2.1	105	1.3	--	--	--	--
Missing	63,610	--	384	4.6	--	--	--	--
Total	1,328,019	100.0%	8,283	100.0%	5,038	100.0%	--	--
<b>1988-1989</b>								
Asian/Pacific Islander	119,803	9.06%	198	2.1%	115	1.87%	130	2.04%
Black	87,775	6.64	899	9.4	512	8.31	603	9.45
Filipino	33,261	2.51	85	0.9	42	0.68	45	0.70
Latino	210,475	15.91	1,404	14.6	840	13.63	916	14.35
Native American	16,270	1.23	187	1.9	117	1.90	129	2.02
White	765,202	57.86	6,519	67.9	4,380	71.07	4,391	68.79
Other	27,302	2.06	90	0.9	46	0.75	57	0.89
Missing	62,421	4.72	212	2.2	111	1.80	112	1.75
Total	1,322,509	100.0%	9,594	100.0%	6,163	100.0%	6,383	100.0%
<b>1989-1990</b>								
Asian/Pacific Islander	132,880	9.44%	267	2.4%	135	2.0%	152	2.2%
Black	94,102	6.68	1,097	9.9	608	8.8	700	9.9
Filipino	36,776	2.61	106	1.0	57	0.8	61	0.9
Latino	237,450	16.87	1,800	16.3	1,084	15.8	1,151	16.3
Native American	16,766	1.19	271	2.5	165	2.4	185	2.6
White	796,586	56.59	7,210	65.3	4,686	68.1	4,627	65.6
Other	--	--	121	1.1	66	1.0	78	1.1
Unknown/Missing	93,134	6.62	167	1.5	77	1.1	96	1.4
Total	1,407,694	100.0%	11,039	100.0%	6,878	100.0%	7,050	100.0%
<b>1990-1991</b>								
Asian/Pacific Islander	130,117	9.29%	285	2.4%	170	2.2%	184	2.3%
Black	96,543	6.89	1,252	10.5	708	9.2	843	10.7
Filipino	39,180	2.80	87	0.7	57	0.7	64	0.8
Latino	227,332	16.23	1,946	16.3	1,206	15.6	1,273	16.2
Native American	21,318	1.52	283	2.4	181	2.3	192	2.4
White	746,943	53.33	7,744	64.8	5,187	67.2	5,101	64.8
Other	24,427	1.74	198	1.7	120	1.6	121	1.5
Unknown/Missing	114,820	8.20	155	1.3	86	1.1	95	1.2
Total	1,400,680	100.0%	11,950	100.0%	7,715	100.0%	7,873	100.0%

**Note** The number of students served as learning disabled is greater than the number eligible because some students receive learning disabled services outside of the standard eligibility determination process

**Source** Adapted from Table 3 on page 6 of the Chancellor's Office's report reproduced in Appendix F

**DISPLAY 11 Demographic Groups with the Largest Percentage Differences Between Total Community College Enrollment and Referrals for Learning Disability Assessment, 1987-88 Through 1990-91**

Year and Characteristic	Total Community College Enrollment		Students Referred for Learning Disability Assessment		Students Identified as Eligible to Receive Services		Students Receiving Learning Disability Services	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1987-1988								
Asian/Pacific Islander	122,648	9.7%	175	2.1%	90	1.79%	--	--
Filipino	31,610	2.5	52	0.6	25	0.50	--	--
Native American	15,173	1.2	109	1.3	65	1.29	--	--
White	788,991	62.4	5,502	66.4	3,723	73.90	--	--
18	98,624	7.8	816	9.9	520	9.79	--	--
19	103,682	8.2	941	11.4	611	11.51	--	--
50-Over	141,614	11.2	295	3.6	200	3.77	--	--
1988-1989								
Asian/Pacific Islander	119,803	9.06%	198	2.1%	115	1.87%	130	2.04%
Filipino	33,261	2.51	85	0.9	42	0.68	45	0.70
Native American	16,270	1.23	187	1.9	117	1.90	129	2.02
White	765,202	57.86	6,519	67.9	4,380	71.07	4,391	68.79
18	105,668	7.99	988	10.3	680	11.03	691	10.83
19	111,624	8.44	1,141	11.9	764	12.40	788	12.35
50-Over	150,735	11.40	325	3.4	201	3.26	225	3.52
1989-1990								
Asian/Pacific Islander	132,880	9.44%	267	2.4%	135	2.0%	152	2.2%
Filipino	36,776	2.61	106	1.0	57	0.8	61	0.9
Native American	16,766	1.19	271	2.5	165	2.4	185	2.6
White	796,586	56.59	7,210	65.3	4,686	68.1	4,627	65.6
18	of all students		1,120	10.1	721	10.5	723	10.3
19	were not reported		1,341	12.1	838	12.2	847	12.0
50-Over	in these categories		341	3.1	209	3.0	220	3.1
1990-1991								
Asian/Pacific Islander	130,117	9.29%	285	2.4%	170	2.2%	184	2.3%
Filipino	39,180	2.80	87	0.7	57	0.7	64	0.8
Native American	21,318	1.52	283	2.4	181	2.3	192	2.4
White	746,943	53.33	7,744	64.8	5,187	67.2	5,101	64.8
18	95,911	6.85	1,236	10.3	868	11.3	861	10.9
19	116,579	8.32	1,376	11.5	899	11.7	928	11.8
50-Over	145,294	10.37	387	3.2	259	3.4	266	3.4

**Note** The number of students served as learning disabled is greater than the number eligible because some students receive learning disabled services outside of the standard eligibility determination process

**Source** Adapted from Tables 1-3 on pages 4-6 of the Chancellor's Office's report reproduced in Appendix F

lege student body Over the four years of this study, they averaged a share of the referred population that was 7½ percentage points higher than their proportional representation in the entire community college student body Students in the two age categories of 18 and 19 also tended to comprise a larger share of the referred population than of the entire student body. On average, 18-year-old students were referred for learning disability determination at rates 2.7 percentage points higher than the rates they are represented among all community college students, while the difference for 19-year olds is 3.3 percentage points Students between 30 and 49 years of age are also a slightly larger percentage of the referral group than of the student body at large -- the percentage point difference being an average 1.9 percentage points

American Indian students are also represented at a slightly higher rate in terms of referrals than is their share of overall community college enrollment They comprise just over 1.5 percent of community college enrollment, so their numbers are small enough to produce a significant percent difference. For example, in 1990-91, their 2.4 percent share of learning disability referrals was 57 percent higher than their share of all students.

### **Reasons for the differences**

The differences in the percentages of age, gender and racial/ethnic categories of students referred for learning disability determination appear to be related to the wholly voluntary nature of the referral process

#### *Under-representation of older students*

The causes for the statistical under-representation of older students in the community colleges' learning disabilities programs have always been speculative and based on anecdotal evidence Yet last year, members of the technical advisory committee of experts convened by the Commission to review the community colleges' learning disabilities eligibility model expressed no surprise at this finding, as it was consistent with their professional experiences. Some members noted that due to funding and other restraints, most colleges' learning disabilities ser-

vices are far more accessible in the morning-to-mid-afternoon hours, while many older students attend classes in the evenings.

Chancellor's Office's staff also note that many students in the "50 and over" category take community college courses more for social purposes than for strictly academic ones As such, they would not be as interested in using most student services as students with more academic goals

Finally, many experts believe that by the time people have reached the age of 50, they have likely found ways to compensate for any learning disabilities in day-to-day life People in the older age categories who have had to survive and prosper despite these disabilities may not see the need to subject themselves to a rigorous learning disabilities assessment process Thus the four-year pattern of under-representation of older students in the colleges' learning disabilities programs appears to be the result of conscious decisions made by individuals in this group for their own reasons

#### *Under-representation of Asian/Pacific Islander and Filipino students*

As is the case for older students, no quantitative information exists on why Asian/Pacific Islander and Filipino students are referred for determination of learning disabilities at rates substantially lower than other racial/ethnic groups Reasons put forth by experts on the subject are speculative and based upon anecdotes; some feel that cultural differences -- and the perceptions of these programs among certain groups -- dissuade these students from seeking or accepting referral Essentially, the explanations for the lower-than-average referral rates for these students boil down to decisions that these students make in choosing not to access the programs.

#### *Over-representation of 18- and 19-year olds*

As noted above, students aged 18 and 19 are referred for learning disability determination at rates significantly greater than their proportional representation in the community college student body as a whole Chancellor's Office's staff and advisory committee members say that a major reason for their high number in this population is that many have worked with high school teachers and counselors who were aware of the possibility that these stu-

dents might have learning disabilities -- and these teachers and counselors have sought to ease the transition to college for these students by alerting them to their own individual strengths and weaknesses as well as the many services (including learning disability services) available to them on community college campuses. This assistance from high school staff would increase the likelihood that students with certain needs would seek out the appropriate student services

Additionally, younger students may be more aggressively counseled and advised by community college staff to seek out needed services if they seek to be academically successful and, in particular, eventually transfer to a four-year campus

#### *Over-representation of White and Native American students*

White and Native American students also represent a larger share of the "referred" pool than of the community colleges' overall enrollment. Again, while no quantitative data exist to explain this finding, it seems likely that the combination of the college-going history of many White students' families, their familiarity with student services programs, and their orientation to transfer may account for most of their over-representation. One possibility accounting for the over-representation of Native American students is the likelihood that, like 18- and 19-year olds, many of them may have received special encouragement from teachers or counselors to take advantage of particularly useful community college services and programs

In sum, the differences between age and racial/ethnic groups do not appear to be the fault of

the learning disability programs themselves. Rather, they result from the voluntary nature of the programs, with students in certain age and racial/ethnic groups seeking and accepting referral at much lower or higher rates than others.

Based on four years of study on this subject and extensive consultation with experts in this field, the Commission thus concludes that the community colleges' learning disabilities eligibility model shows no evidence of age, gender, or racial/ethnic bias in its design or operation. Further, the Commission concludes that the Chancellor's Office has fully satisfied the requirements of the 1988 Supplemental Report Language to the Budget calling for these studies and reports

#### **Recommendation**

While the Commission encourages the Chancellor's Office to continue its oversight of the operation of the learning disabilities eligibility model and other aspects of the community colleges' services to this and other disabled student groups, the Commission sees no reason for the Chancellor's Office to continue its series of demographic studies and reports on learning disabled students. Instead, the Commission recommends that any further reporting on issues related to learning disabled students by the Chancellor's Office be made through its series of biennial reports mandated by AB 746 (Hayden 1987) that the Commission is charged to review and on which it will comment in future reports to the Legislature.



# 4

## *The Department of Rehabilitation's Interest in Postsecondary Education*

### **Mission and work of the Department**

California's Department of Rehabilitation is the State's principal agency to help people with disabilities reach social and economic independence. In addition to providing vocational and pre-vocational assistance for persons with disabilities, the Department provides restorative, educational, and supportive services to its clients through vocational rehabilitation counselors and through coordinating its services with other public and private sector providers.

The Department's most recent mission statement, reproduced in Appendix G of this report, includes the statement, "The Department will develop partnerships with education institutions to strengthen the link between school and work for people with disabilities."

The Department provides support for community rehabilitation facilities and other local resources for disabled persons, including students. As is required under the Federal Rehabilitation Act of 1973, the Department has established a priority system of extending services to severely disabled persons, and almost half of the people served by the Department annually fall into that category of severely disabled.

For 1991, the Department estimated that as many as 750,000 disabled Californians over age 18 were in some need of the services it provides, yet the Department was anticipated to provide direct rehabilitative services to some 23,500 of these persons. The Department has been involved in cooperative efforts with California's public higher education institutions for more than a decade, although ordinarily only on a project-by-project basis. Now it seeks more extensive and on-going cooperation through sponsoring disabled students enrolled in both public and private postsecondary institutions. This program involves working with the students and with

their advisors, counselors, and support personnel to help them get through college and be able to enter the workforce upon graduation.

### **Postsecondary education and the Departments' transition programs**

The Department has developed several comprehensive "transition" programs to assist students with disabilities to attain skills and experience necessary to obtain viable, unsubsidized employment in the public and private sectors. These programs involve employers, consumers, parents, educators, and community and agency support staff in the training and placement of these clients. They aim to help disabled students attain their degree goals, while better equipping themselves to enter the workforce.

Several transition programs are sponsored by the Department that involve both K-12 and public postsecondary education. Five of these programs are described in Display 12 on the next page. Among those five programs, the three "WorkAbility" projects involving County Offices of Education, the California Department of Education, and the California Community Colleges have enjoyed particular success. These WorkAbility programs have been recognized by the federal Office of Special Education and Rehabilitative Services by being named one of the top ten nationally acclaimed transition programs for youth with disabilities. Major factors in the success of these programs are the interagency partnerships that exist among regular, special, and vocational educators and the staff of various divisions within the educational systems and the Department of Rehabilitation.

## *DISPLAY 12 Department of Rehabilitation Transition Programs*

### *WorkAbility I*

WorkAbility I began as a program in 1981 to test the concept of work experience with special education students. Currently, WorkAbility I has 155 individual projects throughout the State serving 983 school sites, eight regional occupational centers/programs, seven private schools, and one State school for the deaf and has projects in all but one California county. During the school years from 1982-83 to 1990-91, WorkAbility I has served over 130,000 special needs secondary students. WorkAbility I is funded by both State and federal funds. Funding for 1991-92 is \$6.304 million.

### *WorkAbility II*

WorkAbility II, enacted in the Fall of 1985, was designed to enhance collaboration between the State Departments of Rehabilitation and Education and is established as the first official cooperative program between these two agencies. The program operates from adult schools and regional occupational centers/programs in conjunction with local offices of the Department of Rehabilitation to provide a blending of vocational services to adults and out-of-school youth who meet acceptance requirements. Currently, 26 WorkAbility II projects are operating statewide from a combined funding base provided through the State Department of Rehabilitation and local education agencies.

### *WorkAbility III*

WorkAbility III is the result of an interagency agreement initiated in January of 1986 between the California Community Colleges and the Department of Rehabilitation. WorkAbility III serves people with disabilities who are both community college students and Department of Rehabilitation clients desiring and in need of employment. WorkAbility III offers direct job placement, transition assistance into employment, and support services. It is funded jointly by the Department of Rehabilitation and the local community college districts.

### *Transition Partnership Programs*

Transition Partnership Programs were initiated in 1988 through the Transition Partnership Project which is a joint project of the State Departments of Rehabilitation and Education. There are currently 29 programs in operation statewide. These programs serve disabled secondary students who have also become DR clients. The purpose of the project is to promote collaboration between the two departments through local programs that assist the students-clients to prepare for and transition to competitive employment.

### *Cooperatives with the California State University*

Beginning in 1992-93, the California State University will be involved in cooperative programs that will serve shared students/Department of Rehabilitation clients and that will assist in meeting the Department's goal of increased career development for persons with disabilities. The budget for 1992-93 will be \$1.5 million for an estimated ten programs.

Source: Department of Rehabilitation

### **Current interests of the Department**

The Department is seeking more extensive substantive involvement with education institutions as part of its mission to assist students with disabilities. Included are the development of cooperative programs with schools, colleges, universities, and local education agencies to match federal dollars for services to targeted disabled populations. Department representatives have noted that they hope to see more representation for the large population of disabled students in postsecondary education in the educational policy research conducted by the State and the institutions.

The Department of Rehabilitation has been a member of the Intersegmental Planning Committee on Disabled Student Services since its inception in 1985, although in recent years it has not played a

major role. Future activities of the planning committee will include discussions on the proper role for the Department in the systems' processes of providing services to their disabled student populations. The Department has ongoing contact with this population and has gained extensive expertise in dealing with issues related to the provision of services to this group. As such, the Department could provide a useful perspective in future discussions on the many issues related to this subject.

In addition, with its role in administering many federally funded programs for disabled persons, the Department may be able to access additional funding to improve services for disabled students in California higher education. Future Commission reports in response to AB 746 will report on the role played by the Department in assisting the State's disabled students.

# Appendix A

## Assembly Bill 746 (Chapter 829, Statutes of 1987)

### Assembly Bill No. 746

#### CHAPTER 829

An act to amend and renumber the heading of Chapter 14 (commencing with Section 67320) of, and to add Chapter 14.2 (commencing with Section 67310) to, Part 40 of the Education Code, relating to postsecondary education

[Approved by Governor September 19, 1987. Filed with Secretary of State September 21, 1987.]

#### LEGISLATIVE COUNSEL'S DIGEST

AB 746, Hayden. Postsecondary education

Existing law requires the services for disabled students provided by the California Community Colleges and the California State University, and authorizes the services provided by the University of California, at a minimum, to conform to the level and the quality of services provided by the Department of Rehabilitation prior to July 1, 1981.

This bill would govern state funded disabled student programs and services at public postsecondary institutions and would specify the principles that a state funded activity is required to observe. This bill would declare the intent of the Legislature that, as appropriate for each postsecondary segment, funds provided for disabled student programs and services be based on the fixed costs associated with the ongoing administration and operation of the services and programs, continuing variable costs that fluctuate with changes in the number of students or the unit load of students, and one-time variable costs associated with the purchase or replacement of equipment.

This bill would require the Board of Governors of California Community Colleges and the Trustees of the California State University to, and would authorize the Regents of the University of California to, work with the California Postsecondary Education Commission and the Department of Finance, as specified, adopt rules and regulations, maintain the present intersegmental efforts to work with the commission and other interested parties, and develop and implement, in consultation with students and staff, a system for evaluating state-funded programs and services for disabled students on each campus at least every 5 years. This bill would also require the Board of Governors of the California Community Colleges and the Trustees of the California State University to, and would authorize the Regents of the University of California to, submit a report to the Governor, the education policy committees of the Legislature, and the California Postsecondary Education Commission biennially, commencing in January 1989. This bill would require the California Postsecondary Education Commission to review these reports and submit its comments and recommendations to the Governor and the

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education policy committees of the Legislature

This bill would provide that nothing in this bill shall be construed to be directing students toward a particular program or service for students with disabilities nor shall anything in this bill be used to deny any student an education

*The people of the State of California do enact as follows*

SECTION 1 Chapter 14 2 (commencing with Section 67310) is added to Part 40 of the Education Code, to read

CHAPTER 14 2 STATE FUNDED DISABLED STUDENT PROGRAMS  
AND SERVICES

67310 (a) The Legislature finds and declares that equal access to public postsecondary education is essential for the full integration of persons with disabilities into the social, political, and economic mainstream of California. The Legislature recognizes the historic underrepresentation of disabled students in postsecondary programs and the need for equitable efforts that enhance the enrollment and retention of disabled students in public colleges and universities in California

(b) The Legislature recognizes its responsibility to provide and adequately fund postsecondary programs and services for disabled students attending a public postsecondary institution

(c) To meet this responsibility, the Legislature sets forth the following principles for public postsecondary institutions and budgetary control agencies to observe in providing postsecondary programs and services for students with disabilities

(1) The state funded activity shall be consistent with the stated purpose of programs and services for disabled students provided by the California Community Colleges, the California State University, or the University of California, as governed by the statutes, regulations, and guidelines of the community colleges, state university, or the University of California

(2) The state funded activity shall not duplicate services or instruction that are available to all students, either on campus or in the community

(3) The state funded activity shall be directly related to the functional limitations of the verifiable disabilities of the students to be served.

(4) The state funded activity shall be directly related to these students' full access to and participation in the educational process.

(5) The state funded activity shall have as its goals the independence of disabled students and the maximum integration of these students with other students

(6) The state funded activity shall be provided in the most integrated setting possible, consistent with state and federal law,

state policy and funding requirements, and missions and policies of the postsecondary segment, and shall be based on identified student needs

(d) It is the intent of the Legislature that, through the state budget process, the public postsecondary institutions request, and the state provide, funds to cover the actual cost of providing services and instruction, consistent with the principles set forth in subdivision (c), to disabled students in their respective postsecondary institutions

(e) All public postsecondary education institutions shall continue to utilize other available resources to support programs and services for disabled students as well as maintain their current level of funding from other sources whenever possible

(f) Pursuant to Section 67312, postsecondary institutions shall demonstrate institutional accountability and clear program effectiveness evaluations for services to students with disabilities

67311 It is the desire and intent of the Legislature that, as appropriate for each postsecondary segment, funds for disabled student programs and services be based on the following three categories of costs

(a) Fixed costs associated with the ongoing administration and operation of the services and programs. These fixed costs are basic ongoing administrative and operational costs of campus programs that are relatively consistent in frequency from year-to-year, such as

(1) Access to, and arrangements for, adaptive educational equipment, materials, and supplies required by disabled students

(2) Job placement and development services related to the transition from school to employment

(3) Liaisons with campus and community agencies, including referral and followup services to these agencies on behalf of disabled students

(4) On-campus and off-campus registration assistance including priority enrollment, applications for financial aid, and related college services

(5) Special parking, including on-campus parking registration, temporary parking permit arrangements, and application assistance for students who do not have state handicapped placards or license plates

(6) Supplemental specialized orientation to acquaint students with the campus environment

(7) Activities to coordinate and administer specialized services and instruction

(8) Activities to assess the planning, implementation, and effectiveness of disabled student services and programs

The baseline cost of these services shall be determined by the respective system and fully funded with annual adjustments for inflation and salary range changes, to the extent funds are provided

(b) Continuing variable costs that fluctuate with changes in the

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number of students or the unit load of students. These continuing variable costs are costs for services that vary in frequency depending on the needs of students, such as

(1) Diagnostic assessment, including both individual and group assessment not otherwise provided by the institution to determine functional, educational, or employment levels or to certify specific disabilities

(2) On-campus mobility assistance, including mobility training and orientation and manual or automatic transportation assistance to and from college courses and related educational activities

(3) Off-campus transportation assistance, including transporting students with disabilities to and from the campus in areas where accessible public transportation is unavailable, inadequate, or both

(4) Disability-related counseling and advising, including specialized academic, vocational, personal, and peer counseling, that is developed specifically for disabled students and not duplicated by regular counseling and advising services available to all students

(5) Interpreter services, including manual and oral interpreting for deaf and hard-of-hearing students

(6) Reader services to coordinate and provide access to information required for equitable academic participation if this access is unavailable in other suitable modes

(7) Services to facilitate the repair of equipment and learning assistance devices

(8) Special class instruction that does not duplicate existing college courses but is necessary to meet the unique educational needs of particular groups of disabled students

(9) Speech services, provided by licensed speech or language pathologists for students with verified speech disabilities

(10) Test taking facilitation, including adapting tests for and proctoring test taking by, disabled students

(11) Transcription services, including, but not limited to, the provision of Braille and print materials

(12) Specialized tutoring services not otherwise provided by the institution

(13) Notetaker services for writing, notetaking, and manual manipulation for classroom and related academic activities

State funds may be provided annually for the cost of these services on an actual-cost basis, including wages for the individuals providing these services and expenses for attendant supplies. Each institution shall be responsible for documenting its costs to the appropriate state agencies

(c) One-time variable costs associated with the purchase or replacement of equipment. One-time variable costs are one-time expenditures for the purchase of supplies or the repair of equipment, such as adapted educational materials and vehicles. State funds shall be provided for these expenses on an actual cost basis as documented by each institution

67312 (a) The Board of Governors of the California Community Colleges and the Trustees of the California State University shall, for their respective systems, and the Regents of the University of California may do the following

(1) Work with the California Postsecondary Education Commission and the Department of Finance to develop formulas or procedures for allocating funds authorized under this chapter

(2) Adopt rules and regulations necessary to the operation of programs funded pursuant to this chapter

(3) Maintain the present intersegmental efforts to work with the California Postsecondary Education Commission and other interested parties, to coordinate the planning and development of programs for students with disabilities, including, but not limited to, the establishment of common definitions for students with disabilities and uniform formats for reports required under this chapter

(4) Develop and implement, in consultation with students and staff, a system for evaluating state-funded programs and services for disabled students on each campus at least every five years. At a minimum, these systems shall provide for the gathering of outcome data, staff and student perceptions of program effectiveness, and data on the implementation of the program and physical accessibility requirements of Section 794 of Title 29 of the Federal Rehabilitation Act of 1973

(b) Commencing in January 1990, and every two years thereafter, the Board of Governors of the California Community Colleges and the Trustees of the California State University shall, for their respective systems, and the Regents of the University of California may, submit a report to the Governor, the education policy committees of the Legislature, and the California Postsecondary Education Commission on the evaluations developed pursuant to subdivision (a). These biennial reports shall also include a review on a campus-by-campus basis of the enrollment, retention, transition, and graduation rates of disabled students

(c) The California Postsecondary Education Commission shall review these reports and submit its comments and recommendations to the Governor and education policy committees of the Legislature

67313 Nothing in this chapter shall be construed to be directing any student, or students, toward a particular program or service for students with disabilities nor shall anything in this chapter be used to deny any student an education because he or she does not wish to receive state funded disabled student programs and services

67314 No provision of this chapter shall apply to the University of California unless the Regents of the University of California, by resolution, make that provision applicable

SEC 2 The heading of Chapter 14 (commencing with Section 67320) of Part 40 of the Education Code is amended and renumbered to read



## Appendix B

## Reports of the Systems

University of California. <i>Report to the Legislature on Assembly Bill 746: Services to Students with Disabilities</i>	33
The California State University. <i>Report to the Legislature on Assembly Bill 746: Services to Students with Disabilities</i>	67
Chancellor's Office, California Community Colleges. <i>Report to the Legislature on Assembly Bill 746: Disabled Students Programs and Services</i>	79

University of California  
Office of the President  
February 14, 1992

**Report to the Legislature on Assembly Bill 746:  
Services to Students with Disabilities**

**Introduction**

Assembly Bill 746 (chaptered 1987, Hayden) states, in part, that:

- (a) The Board of Governors of the California Community Colleges and the Trustees of the California State University shall, for their respective systems, and The Regents of the University of California may do the following:
  - (1) Work with the California Postsecondary Education Commission and the Department of Finance to develop formulas or procedures for allocating funds authorized under this chapter.
  - (2) Adopt rules and regulations necessary to the operation of programs funded pursuant to this chapter.
  - (3) Maintain the present intersegmental efforts to work with the California Postsecondary Education Commission and other interested parties, to coordinate the planning and development of programs for students with disabilities, including, but not limited to the establishment of common definitions for students with disabilities and uniform formats for reports required under this chapter.
  - (4) Develop and implement, in consultation with students and staff, a system for evaluating state-funded programs and services for disabled students on each campus at least every five years. At a minimum, these systems shall provide for the gathering of outcome data, staff and student perceptions of program effectiveness, and data on the implementation of the program and physical accessibility requirements of Section 794 of Title 29 of the Federal Rehabilitation Act of 1973.
- (b) Commencing in January 1990, and every two years thereafter, the Board of Governors of the California Community Colleges and the Trustees of the California State University shall, for their respective systems, and The Regents of the University of California may, submit a report to the Governor, the education policy committees of the Legislature, and the California Postsecondary Education

Commission on the evaluations developed pursuant to subdivision (a). These biennial reports shall also include a review on a campus-by-campus basis of the enrollment, retention, transition, and graduation rates of disabled students.

In response to these requests, the University of California has prepared this second biennial report describing the progress the University has made to date in implementing the activities set forth in AB 746.

In the Fall of 1988, the California Postsecondary Education Commission (CPEC) convened an AB 746 Intersegmental Planning Committee for Services to Students with Disabilities composed of campus and systemwide staff from each segment to plan the implementation of the new State policy on disabled student services and programs in California postsecondary education. Specifically, the Intersegmental Planning Committee was asked to devise a strategy for evaluating the effectiveness of services for students with disabilities and to develop uniform formats for the reports required under AB 746. The University's current representatives are the Director of the UCLA Disabled Student Services program and the Universitywide Coordinator for Disabled Student Services.

Subsequently, the AB 746 Intersegmental Planning Committee for Services to Students with Disabilities met on June 6, 1989 with Mr. Curtis Richards, consultant to Assemblymember Hayden, to review the content of the reports and reporting deadlines as required by statute. A full description of the agreements reached at that meeting is enclosed (Attachment 1). In summary, the agreements call upon the three segments of public postsecondary education to provide the following:

- 1) The first biennial report, due to the Governor, the Legislature, and CPEC by January 31, 1990 will contain:
  - (a) an update on the development of formulas and procedures for allocating funds for disabled student services;
  - (b) a summary of the adoption of rules and regulations needed to operate campus disabled student services programs;
  - (c) a statement on the maintenance of intersegmental efforts to coordinate the planning and development of programs for students with disabilities; and
  - (d) a workplan and outline of the comprehensive evaluations of State-funded programs.
- 2) Commencing in January 1992, the biennial reports will include a review on a campus-by-campus basis of the

Commission on the evaluations developed pursuant to subdivision (a). These biennial reports shall also include a review on a campus-by-campus basis of the enrollment, retention, transition, and graduation rates of disabled students.

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  - (d) a workplan and outline of the comprehensive evaluations of State-funded programs.
- 2) Commencing in January 1992, the biennial reports will include a review on a campus-by-campus basis of the

enrollment, retention, transition, and graduation rates of students with disabilities.

The first biennial report was submitted to the Governor, Legislature, and CPEC in February 1990. The report contained a discussion of the topics outlined in 1(a) through 1(d) above.

On January 22, 1991, the AB 746 Intersegmental Advisory Committee met to discuss, among other things, the topics to be contained in the University's second biennial report (see Attachment 2). In addition to providing an update of the topics examined in the first report, the University's second biennial report includes a discussion of the enrollment, retention, transition, and graduation rates of students with disabilities as described in section 2 above.

#### **Procedures for the Allocation of Funds**

AB 746 delineates a common foundation for public postsecondary education institutions to seek funding from the State for services to students with disabilities. As chaptered, the statute calls for funding requests to be based on the actual costs of providing services using three cost categories: (1) fixed costs associated with the ongoing administration and operation of the programs; (2) continuing variable costs that fluctuate with changes in the number of students served or the number of units in which students are enrolled; and (3) one-time variable costs associated with the purchase or replacement of equipment. The University incorporated into its budget request methodology recommendations, made at an AB 746 Intersegmental Planning Committee meeting on October 17, 1988, that budget requests be based on actual costs for services. The University's most recent funding request for the 1992-93 academic year was based on 1990-91 actual costs (the last year for which data are available) for the three cost categories, adjusted for predicted workload changes anticipated during 1992-93. This budget request has been submitted through the normal University budget process. The University has used this funding methodology in all of its budget requests since the passage of AB 746 and it is anticipated that all future University budget requests will follow this funding methodology.

#### **Adoption of Regulations Necessary to the Operation of State-funded Programs**

In 1979, the University established guidelines to implement the "Report of the Statewide Task Force on Services to Students with Disabilities." This Task Force was convened by CPEC and consisted of representatives from each of the postsecondary education segments in California. The University's implementing guidelines provide eligibility criteria, define disabilities and the types of services to be provided, establish campus and

Universitywide advisory committees, specify evaluation requirements, and outline various administrative and accountability procedures. The University began a comprehensive review of the guidelines in 1987 to determine whether changes in campus procedures were needed and to incorporate the University's "Guidelines for Assessment and Accommodation of Students with Learning Disabilities." The funding methodology, scope of services, and evaluation provisions of AB 746 also are being incorporated. The revised guidelines will be submitted to the campuses and the President's Advisory Committee on Services to Students with Disabilities for comment before the end of the 1991-92 academic year.

#### **Intersegmental Planning and Development of Programs for Students with Disabilities**

As noted earlier, the University has been an active participant in the AB 746 Intersegmental Planning Committee since its inception. To date, the Intersegmental Planning Committee's efforts to implement AB 746 have focused on:

- 1) the development of segmental formulas or procedures for the allocation of State funds authorized for services to students with disabilities to the segments;
- 2) intersegmental coordination of programs for students with disabilities, specifically the development of common definitions of types of disabilities and services and the establishment of comparable formats for reports;
- 3) the development of procedures and instruments for evaluating State-funded programs and services for disabled students on each campus; and
- 4) the identification of methods for evaluating architectural barrier removal needs, including co-sponsorship of two training workshops on the physical accessibility requirements of Title 24 conducted by the State Architect's Office for postsecondary education personnel.

#### **Workplan and Outline of the University's Comprehensive Evaluation of State-funded Programs and Services**

AB 746 calls for each segment to develop a system for evaluating at least every five years the State-funded programs and services for students with disabilities on each campus. The legislation specifies that a minimum of three components be included: (1) staff and student perceptions of program effectiveness; (2) outcome data such as enrollment, retention, transition, and graduation rates; and (3) data on the program and physical accessibility of campuses. The progress the University has made to implement these evaluation components is described below.

Universitywide advisory committees, specify evaluation requirements, and outline various administrative and accountability procedures. The University began a comprehensive review of the guidelines in 1987 to determine whether changes in campus procedures were needed and to incorporate the University's "Guidelines for Assessment and Accommodation of Students with Learning Disabilities." The funding methodology, scope of services, and evaluation provisions of AB 746 also are being incorporated. The revised guidelines will be submitted to the campuses and the President's Advisory Committee on Services to Students with Disabilities for comment before the end of the 1991-92 academic year.

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# **1) Staff and Student Perceptions of Program Effectiveness**

In consultation with campus officials, the University has developed a Universitywide plan for assessing the perceptions of staff and students regarding the effectiveness of services and programs for students with disabilities. The evaluation plan includes development of: (a) uniform questionnaires that assess program effectiveness; (b) timelines for administering the questionnaires; and (c) procedures for compiling and reporting the data.

During the 1988-1989 academic year, a uniform questionnaire assessing students' perceptions of program effectiveness was developed and pilot-tested. The questionnaire assesses students' perceptions of the adequacy, effectiveness, and availability of the services provided. In addition, campuses may choose to add questions or sections to the questionnaire that reflect unique campus needs or program issues.

Following pilot-testing, the questionnaire was revised and submitted to the AB 746 Intersegmental Planning Committee for consideration as an intersegmental instrument for assessing student perceptions of program effectiveness. Based on the Planning Committee's recommendations, the instrument was revised again and submitted to the Directors of Services to Students with Disabilities at each campus of the University for their review and comment. A final draft copy of the instrument is enclosed (Attachment 3).

To capture staff and faculty perceptions of the effectiveness of disabled student services and programs, the AB 746 Intersegmental Planning Committee drafted a separate intersegmental survey instrument that addresses the specific concerns of staff and faculty. The instrument has been reviewed and revised by the Intersegmental Planning Committee, as well as the Directors of Services to Students with Disabilities at each campus of the University. A final draft copy of the instrument is enclosed (Attachment 4).

Both instruments will be reviewed before the end of the 1991-92 academic year by the President's Advisory Committee on Services to Students with Disabilities, which is composed of University students, faculty, and staff. Following any necessary revisions, the University plans to administer both the student survey and the faculty/staff survey on all campuses of the University in the Spring term of 1992.



## **2) Outcome Data Project**

The University is currently developing procedures to determine the retention and graduation rates of students with permanent disabilities. This process includes the implementation of procedures designed to obtain appropriate student enrollment information as well as the development of systems that can effectively track the academic progress of students with disabilities.

**Enrollment Information.** In order to calculate the retention and graduation rates of students with disabilities, the University needed to develop procedures for gathering accurate enrollment data for this student group. Beginning in the Fall of 1990, the University implemented procedures to collect enrollment data for all new students with disabilities who entered the University in the 1990-91 academic year and who identified themselves as permanently disabled. By identifying these students and those who enroll in subsequent years as disabled, the University will soon have the baseline information that is required to calculate retention and graduation rates for students with disabilities. Enrollment information for the 1990-91 academic year cohort are presented in Table 1.<sup>1</sup>

**Retention and Graduation Information.** In concert with the collection of enrollment data, the University is currently developing procedures to track students with disabilities throughout their academic careers at the University so that the retention and graduation rates of these students can be determined. New data elements will be added to the University's existing data base identifying which students are disabled as well as the type of disability. It is expected that these new data elements will become operational by Fall 1992.

The University's first retention report, using data from the 1990-91 student cohort, should be available in January 1994. A graduation rate report for the 1990-91 cohort should be available in January 1996.

## **3) Physical Accessibility of Campuses**

To comply with Federal law, each campus prepared an evaluation in 1979 that identified the physical obstacles limiting accessibility, described how the facilities would

<sup>1</sup> The data presented in Table 1 include only those students who are new to the University during the 1990-91 academic year and who identified themselves as permanently disabled by requesting services at campus disabled student service program offices.

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be made accessible, and specified the timetable for achieving program accessibility.

Though campus transition plans are nearing completion, the physical environment of the campuses and the legal requirements for achieving physical accessibility as prescribed in architectural codes have changed since the plans were developed initially. Moreover, some access projects remain to be funded. Campus and Office of the President staff met in June 1989 to discuss the factors that affect the physical access needs on each campus and to outline how the physical accessibility on each campus should be improved. The University will conduct a study that will evaluate campus procedures for: (1) making corrections to facilities and surrounding sites when problems are identified; and (2) ensuring that renovations to existing facilities and new construction comply with current code requirements. The results of the study will be reported to the Governor, the Legislature, and CPEC by January 1993.

**ATTACHMENT 1**

STATE OF CALIFORNIA

GEORGE DEUKMEJIAN Governor

## CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

1020 TWELFTH STREET THIRD FLOOR  
SACRAMENTO CALIFORNIA 95814 3985  
(916) 445 7933



June 16, 1989

Mr. Curtis Richards,  
Consultant to Assemblymember Tom Hayden  
State Capitol, Room 3091  
Sacramento, California

Dear Curtis:

At the June 6th meeting of the AB 746 Advisory Committee on services for disabled students, several agreements were reached regarding timelines for and contents of these reports. As you know, this legislation (Chapter 829, Statutes of 1987) required the University of California, California State University and California Community Colleges to perform specific tasks related to disabled students services by times certain. You attended this meeting, and know of most of these agreements, so this summary is just a formal transmittal of these agreements. Below, we present the agreements which pertain to Education Code Section 67312., as amended by AB 746:

1. The first biennial report, due to the Postsecondary Education Commission and others for review and comment in January, 1990 from the three segments of public postsecondary education will contain the following sections:
  - a) An update of their work with the Postsecondary Commission and Department of Finance on the development of formulas and procedures for allocating funds for disabled students services [ sect. 67312. (a) (1) and (b)];
  - b) A summary of the adoption of rules and regulations necessary to operate the programs for disabled students funded pursuant to this chapter [ sect. 67312. (a) (2) and (b)];
  - c) A brief statement on the maintenance of intersegmental efforts to coordinate the planning and development of programs for students with disabilities [ sect. 67312. (a) (3) and (b)], and
  - d) A workplan and outline of the 5-year comprehensive evaluations of state-funded programs and service for disabled students [ sect. 67312. (a) (4) ].
2. The biennial reports are to include a review on a campus-by-campus basis of the enrollment, retention, transition, and graduation rates. Due to the complexity of developing appropriate and compatible information assimilation and assessment mechanisms, this report component will be first contained in the biennial report due in January, 1992 [ sect. 67312. (b) ].
3. The initial evaluation reports (due to the Postsecondary Commission and

others for review and comment every five years) will be submitted in January, 1993 and will contain the following information:

- a) A report on the development and implementation of a system for evaluating state-funded programs and services for disabled students on each campus. These evaluations (developed in consultation with students and staff) will provide data on outcomes measures (still to be developed), staff and student perceptions of program effectiveness, and data on the implementation of the program and physical accessibility requirements of Section 794 of Title 29 of the Federal Rehabilitation Act of 1973 [ sect. 67312. (a) (4) ].

At our June 6 meeting, the AB 746 committee also reached the following agreements:

1. A subcommittee of the full AB 746 committee will meet here at the Commission on July 17th to develop intersegmentally consistent guidelines and definitions to be used in their evaluations of architectural barriers and accessibility.
2. Another subcommittee of the AB 746 committee will also meet here on July 17th to develop comparable staff and student surveys, as called for in this legislation
3. The three segments will use intersegmentally consistent definitions of "enrollment" in their reports. Data in the category "retention" is currently not available in the University and is still being developed in the community colleges. Information on "graduation" is also a problem for the University and community colleges at present, but the community colleges may be able to provide more outcomes information than this. Both segments will keep the committee apprised of their work in these two areas. The final category "transfer" has a specific meaning in each segment and more work will have to be done to determine if their respective information collection systems can produce reconcilable transfer information.
4. The segments will keep the committee apprised of their efforts to seek additional state funding for disabled students services through the State budget process and ensure the use of the funding formulas developed for this purpose.

All of the parties involved in this process have worked very diligently to implement the requirements of this legislation, and I expect our efforts to pay off in terms of eventually improving the quality of public higher education for disabled students.

Please call me if you have any questions.

Sincerely,



Kevin G. Woolfork,  
Chair, AB 746 Advisory Committee

cc: Members, AB 746 Advisory Committee  
Kenneth B. O'Brien, Executive Director, CPEC

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**ATTACHMENT 2**



# AB 746 Intersegmental Advisory Committee Meeting

## Notes on January 22, 1991, Meeting

The meeting began at 9:55 a.m.; those present were: Bob Olson and Julie Saylor representing the Department of Finance; Judy Klein and Dave Sanfilippo representing the California State University; Steve Handel and Cathy Molini representing the University of California; Catherine Campisi, Albert Salgado, and Marilyn Jorgensen representing the California Community Colleges; Curtis Richards from the California State Assembly; Keith Foster representing the California Department of Rehabilitation; and Kevin Woolfork (Convener) representing the California Postsecondary Education Commission.

### 1. *Update on AB 746-related activities in the segments*

#### Discussion

All three segments report that their staff and student satisfaction surveys are either complete or will soon be completed. UC has recently distributed the forms to campuses; CCC has already used forms; and CSU is completing forms to be used.

A brief discussion was held to verify the date the first staff and student satisfaction report is due. It was confirmed by the members of the committee that the first of these reports is due in January 1993. The UC and CSU plan to test their surveys during this Spring, while the CCC will use the survey that is currently being evaluated.

The CSU was asked for a status report on the discussion they had last year with the California Council for the Blind (CCOB). The CSU submitted a report to the Legislature as a result of legislation sponsored by CCOB regarding services to students who are blind. To date, the CSU has not been contacted by

CCOB for further information. Concerns raised by the CCOB were discussed with members of the committee.

The Department of Rehabilitation (REHAB) notes that they will be getting an increase in federal monies to move program management contracts in-house. They also will be able to partially offset their budget cuts because they have gotten more local matching monies for some of their programs than they had initially expected.

### 2. *Prospective funding levels for disabled student programs in the public segments in the proposed 1991-92 Governor's Budget*

#### Discussion

All segments report disabled student population increases for the upcoming fiscal year beyond what will probably be funded in the 1991-92 budget. A brief discussion was held at the beginning of the meeting regarding the mandated reductions that all segments are facing.

The Department of Finance (FINANCE) precipitated a long discussion on costs and funding methodology by asking if the segments could produce current estimates of what individual disabled student services (e.g., assessment, interpreters and readers, note takers, etc.) cost for separate disability categories. They posed this question as part of a larger issue of concern: the level of unmet need for disabled student services that might translate into BCPs for the 1992-93 budget year. FINANCE wanted background budget detail on any proposals that would: (1) extend the current service offerings to a greater number of eligible students; and/or (2) enrich/improve the quality of presently existing services. Concern

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was expressed that the request for actual cost data would lead to the necessity that the segments basically "zero-base" their budgets for their disabled students' programs. CSU stated that they have had to develop actual cost information for their DSS budgets to justify requests for the current funding formulas several times in the past. They noted that after the campus and systemwide administrators had gone through all of this work and provided evidence that, based on student demand and necessary levels of service, the programs should be funded at a higher level by the State, no additional monies were forthcoming.

The Learning Disabled program was offered as an example of the extensive time and work commitment involved in developing the most accurate cost data on a specific disability and its related services. CPEC asked if the segments could isolate those costs for just one service provided for a specific program, such as reader services for Acquired Brain Injured students. The CSU answered that it could be done but, again, the concern was expressed that the results of this extra work may not justify the undertaking, since the data were sure to show a need for additional State funding for this program that was probably not to be forthcoming, given the State's current fiscal shortfall. The segmental and campus-level representatives reminded the committee that the on-site programs are not staffed for analytic research and whenever this type of work is required of them, they must take time away from actually providing services to disabled students, thus temporarily inhibiting the students and creating a workload backlog for themselves. They agreed that they can and would develop analytically acceptable cost data when seeking a specified increase either in the cost allowance for a particular service, substantial workload-driven funding enhancements, or funding for a new service or disability.

### 3. *Presentation and discussion of segmental staff and student satisfaction surveys, including discussion of timetables for distribution and analysis of these surveys*

#### Discussion

All three segments are surveying to get identical types of data, though they are using different survey instruments for this initial run. The Community College's (CCC) representatives said that their

staff and student satisfaction surveys are completed and are to be sent out to approximately 20 colleges that will have program evaluations this year; a portion of those colleges being evaluated will also be visited. CCC has developed a set of instructions (attached) to explain the survey. CSU is still in the process of finalizing its surveys and distribution plans. UC has sent out pilot surveys to staff and students; they posed some methodological and distribution questions about the surveys which were discussed and responded to. One question was whether "temporarily" disabled students should be included in the survey. CCC's responded that they have one time-frame for disabled students (the student must have been disabled for the last 45 days) so this problem did not affect them. CPEC and others commented that if a large enough portion of the student population being served on a campus was temporarily disabled -- or if a significant amount of a campus' DSP&S resources was being spent on this group -- it would be important to know these students' perceptions of the services they were receiving. After some discussion it was agreed for UC and CSU that temporarily-disabled students should receive the student satisfaction surveys, but that temporarily-disabled students should not be broken out as a group for any of the enrollment statistics (transfer, retention, and graduation rates, etc.) collected for the January 1992 report.

The committee discussed the Community College's survey instructions (attached); the committee agreed to survey all students when the total program has fewer than 200 participants and select a random sample to survey when program has fewer than 200 participants. FINANCE also suggested that part-time faculty receive the staff satisfaction survey; the segments all agreed. All three segments have agreed to cull results from this initial run to develop a single, intersegmental staff and student survey form for use next year. During its presentation of its satisfaction surveys, UC said that it has set up its systems to follow "Fall 1990" students for retention, graduation and other performance measures due for the report of January 1993. Though it was felt that initially an earlier year had been decided upon, CSU and CCC agreed that they can set up their data-flagging systems to follow this cohort of disabled students as well; it was also stated that by Fall 1991, there will probably be no graduation data available on the Fall 1990 group of students.

Attached are the CCC and UC model (draft) surveys along with the CAS Guidelines for evaluation of disabled student services used in the construction of the CCC survey instrument. A concern was expressed as to the definition of "transfer" for the purposes of the January 1992 report (data on enrollment). Curtis Richards said that though he had initially hoped the data collected could include "transition" (defined to include students' progression to jobs or other post-education activities) he understood the term to mean simply the normal intersegmental matriculation of students. CPEC agreed to get and transmit back to the committee the "official" Intersegmental Coordinating Council definition of this term for use in the 1992 report and future reports.

4. *A discussion of students with "psychological disabilities" in the community colleges, and the appropriate definitions, clientele, services, and related information (community colleges, please be prepared to make a brief presentation on this subject), and;*

#### Discussion

CCC representatives made an in-depth presentation on the issue of the provision of services to students with disabilities. CCCs formed a task force that included REHAB and others to look into this issue. From the presentation, I derived the following key points: (1) This is a recognized disabled student population that must be served under existing State and federal law; (2) Services provided here are only those necessary for the student to adapt to the academic environment (for example, no psychotherapy is provided) and to enhance their likelihood of success therein; (3) Students must provide an external verification of the existence of the disability prior to being assessed by the DSPAS counselor; and, (4) As pertains to behavior, these students must adhere to the campus' code of conduct, as must all students attending the college. In sum, the body of knowledge on this group is still being developed and there is much more that must be learned about what services are appropriately to be provided by the colleges (vis-a-vis REHAB, the local mental

health community, and others) to these students. CCCs reported that they have received Requests For Proposals from six colleges and are reviewing them; four sites will be chosen for a service provision pilot student that will take place this Spring semester.

*5. Information on the development of sufficient data bases in the segments to meet the requirements of the January 1992 AB 746 report.*

#### Discussion

CCCs report that the first stage of its new Management Information System (MIS) provides it with sufficient data to meet the present AB 746 reporting requirements. They note the eventual funding of the third (final) stage will provide them with full data capability as relates to AB 746. CSU has good data on this population and sees no problems with collecting and compiling the information called for in AB 746. UC is still developing its "corporate" (systemwide) data base and also sees no difficulties in providing the needed data.

Curtis Richards asked the segments if they had information on disabled students in doctoral programs or in other programs that would lead them to the college professorate. The segments all responded that they could not identify specific groups of their respective disabled students who wanted to -- and were actively pursuing -- a career, such as college faculty. They agreed that doctoral candidates would be the logical group to look at as a potential pool of new faculty, but UC and CSU noted that many candidates change their career directions late in the process; they did not know what a study of this group could yield in terms of usable data on increasing the numbers of disabled persons seeking to become college-level teachers. CCCs noted that many of their faculty never enroll in doctoral programs and that some, especially some of those teaching only skilled trades, do have a master's or even a baccalaureate degree. Thus, it would be difficult to get a handle on their colleges' potential pool of faculty by looking only at these programs. REHAB commented that it is refining its data base on its clients who are disabled students pursuing different types of employment and that this might be helpful. REHAB agreed to check with me and I promised to report back to the committee on what data REHAB had available.

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**6. Other Issues: Impact of "Americans with Disabilities Act", other.**

**Discussion**

Segments did not know of any specific impact of this legislation, though they said it may impact a campus DSP&S program if it is not providing a proper level of service. REHAB noted that there are other federal legislative initiatives that may impact California's programs but that, generally, the State is so far ahead of most other states that, little impact on our programs is seen at present. CCCs agreed to provide CPEC with a copy of a report on the Act, *Colleges and Universities: A White Paper on the Americans with Disabilities Act* by Proskaur Rose Goetz & Mendelsohn, New York.

CPEC asked the segments about the impact of the defeat last November of Prop 143 (higher education bond) on campus building programs as it relates to accessibility issues. They all responded that their physical accessibility programs are on schedule and they saw no immediate impact at present.

**7. Next meeting time, date, location.**

**Discussion**

It was agreed that the next meeting of the AB 746 Committee would be held some time in the Fall of 1991 to discuss the information collected by the staff and student satisfaction surveys and to assess the data on transfer, graduation, retention, etc. due for the January 1992 report.

The meeting adjourned at 1:10 p.m.

**ATTACHMENT 3**

University of California  
Disabled Student Services and Programs

**STUDENT EVALUATION OF SERVICES TO STUDENTS WITH DISABILITIES: 1991-92**

Please rate the following on-campus services for students with disabilities.

Your answers will be held in the strictest confidence and will help us to improve our services for students with disabilities. Thank you for your cooperation.

**I. General Assistance**

For the questions below, please indicate your level of satisfaction with the type of assistance you received from disabled student service staff as well as the campus as large.

How satisfied or dissatisfied are you with...

The extent to which the services you received were provided in a timely manner.	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable
The availability of the staff to assist you.	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable
The responsiveness of the staff in meeting your needs.	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable
The extent to which instructors have been cooperative in helping you work out classroom accommodations.	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable



<b>The responsiveness of the campus in removing architectural barriers once identified.</b>	<b>Very Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Somewhat Dissatisfied</b>	<b>Dissatisfied</b>	<b>Not Applicable</b>
<b>The degree to which campus departments are effective in assisting students with disabilities.</b>	<b>Very Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Somewhat Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>Not Applicable</b>
<b>The knowledge of the staff regarding disability--related issues.</b>	<b>Very Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Somewhat Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>Not Applicable</b>

**Comments:**

<b>The responsiveness of the campus in removing architectural barriers once identified.</b>	<b>Very Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Somewhat Dissatisfied</b>	<b>Dissatisfied</b>	<b>Not Applicable</b>
<b>The degree to which campus departments are effective in assisting students with disabilities.</b>	<b>Very Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Somewhat Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>Not Applicable</b>
<b>The knowledge of the staff regarding disability-related issues.</b>	<b>Very Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Somewhat Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>Not Applicable</b>

**Comments:**

## II. Specific Services

Please rate the availability and effectiveness of each service that you have used.

"Availability" refers to the extent to which you could obtain a specific service.

"Effectiveness" refers to the degree to which the service was useful to you.

TYPE OF SERVICE	AVAILABILITY		EFFECTIVENESS		COMMENTS
	0 = No Option	1 = Poor*	2 = Fair	3 = Good	4 = Excellent
Readers:					
Note-takers:					
Interpreters:					
Test-Taking Assistance:					
Tutorial Assistance:					
Transcription Services:					
On-campus Transportation:					

\* If you rate any service as "poor" (1), please describe your experience in the comments section.

TYPE OF SERVICE	AVAILABILITY	EFFECTIVENESS	COMMENTS
Off-campus Transportation:			
Access to Adaptive Equipment & Materials:			
Equipment Repair:			
Registration Assistance:			
Information on other Campus & Community Services:			
Special Parking Coordination:			
Usability-related Counseling & Advising:			
Special Orientation to Campus and Programs:			

\* If you rate any service as "poor" (1), please describe your experience in the comments section.

ADDITIONAL COMMENTS:

TYPE OF SERVICE	AVAILABILITY	EFFECTIVENESS	COMMENTS
Off-campus Transportation:			
Access to Adaptive Equipment & Materials:			
Equipment Repair:			
Registration Assistance:			
Information on other Campus & Community Services:			
Special Parking Coordination:			
Usability-related Counseling & Advising:			
Special Orientation to Campus and Programs:			

\* If you rate any service as "poor" (1), please describe your experience in the comments section.

ADDITIONAL COMMENTS:

### III. About Yourself

We would appreciate your responses to the following questions about yourself.

What is your age? \_\_\_\_\_ | What is your gender? \_\_\_\_\_

What is/are your disability/ies?

\_\_\_\_\_ Vision \_\_\_\_\_ Mobility \_\_\_\_\_ Specific Learning Disability \_\_\_\_\_ Acquired Brain Injury  
 \_\_\_\_\_ Hearing \_\_\_\_\_ Manual Dexterity \_\_\_\_\_ Speech/Other Communication \_\_\_\_\_ Other Functional  
 Disability \_\_\_\_\_ Impairment

Is/was your disability: \_\_\_\_\_ Permanent \_\_\_\_\_ Temporary

What is your class level?

\_\_\_\_\_ Freshman \_\_\_\_\_ Junior \_\_\_\_\_ Graduate/Professional  
 \_\_\_\_\_ Sophomore \_\_\_\_\_ Senior

What is your ethnicity?

\_\_\_\_\_ Native American Indian \_\_\_\_\_ Asian/Pacific Islander \_\_\_\_\_ White/Caucasian  
 \_\_\_\_\_ Black/African American \_\_\_\_\_ Chicano/Latino \_\_\_\_\_ Other (Please specify)

How long have you been enrolled at this campus?

\_\_\_\_\_ Less than a Year \_\_\_\_\_ Two Years \_\_\_\_\_ Four Years \_\_\_\_\_ More than Five Years  
 \_\_\_\_\_ One Year \_\_\_\_\_ Three Years \_\_\_\_\_ Five Years

Thanks for your Cooperation!

**ATTACHMENT 4**

University of California  
Disabled Student Services and Programs

**FACULTY/STAFF EVALUATION OF CAMPUS SERVICES FOR STUDENTS WITH DISABILITIES, 1991-92**

State guidelines require us to solicit your evaluation of how well students with disabilities are being served by our campus. We would appreciate your taking the time to complete this evaluation. The results will be used to identify where improvements might be made in our efforts to serve students with disabilities.

**I. About Yourself**

I am: Faculty \_\_\_\_\_ Staff \_\_\_\_\_

How often have you had occasion to contact the Disabled Students Program on your campus (circle one)?

Never      1-5 times      6-10 times      More than 10 times

How would you rate your knowledge of campus services for students with disabilities (circle one)?

Excellent      Good      Fair      Poor

How would you rate your need for additional information regarding campus services for students with disabilities (circle one)?

Very High      Moderately High      Moderately Low      Very Low

How would you rate your need for information regarding disabilities and disability-related issues (circle one)?

Very High      Moderately High      Moderately Low      Very Low



## II. Evaluation of Campus Services

Please indicate how you would rate each of the following statements.	Don't Know	Poor	Fair	Good	Excellent
Availability of information about campus programs and services for students with disabilities.					
Availability of disabled student services (e.g., test proctoring, readers, notetakers, etc.) to assist you in your instruction of disabled students					
Adequacy of disabled student service staff in meeting your requests for accommodation of students with disabilities.					
The extent to which the campus disabled student service program is an integral and permanent part of the total college operation.					
The responsiveness of the campus administration in providing a barrier-free campus in a timely manner.					

Comments

## II. Evaluation of Campus Services

Please indicate how you would rate each of the following statements.					
	Don't Know	Poor	Fair	Good	Excellent
Availability of information about campus programs and services for students with disabilities.					
Availability of disabled student services (e.g., test proctoring, readers, notetakers, etc.) to assist you in your instruction of disabled students					
Adequacy of disabled student service staff in meeting your requests for accommodation of students with disabilities.					
The extent to which the campus disabled student service program is an integral and permanent part of the total college operation.					
The responsiveness of the campus administration in providing a barrier-free campus in a timely manner.					
Comments					

TABLE 1

**Table 1**  
**Number of New Students with Disabilities by Campus and Type of Disability, 1990-91\***  
**University of California**

Campus	Vision	Mobility	Other Functional Impairment	Acquired Brain Injury	Speech	Hearing
UCB	10	33	45	2	1	10
UCD	6	12	9	0	0	8
UCI	7	7	5	0	1	5
UCLA	5	0	11	2	0	2
UCR	6	8	7	0	0	4
UCSD	2	6	3	0	0	1
UCSF	1	4	0	0	0	1
UCSB	2	7	0	0	0	1
UCSC	3	13	14	0	0	5
Totals	42	90	94	4	2	37

\* Data include only those students who are new to the University in 1990-91 (i.e., first-time freshmen, transfer, and graduate/professional school students) and who identified themselves as permanently disabled by requesting services at campus disabled student service program offices

SJH (2/14/92)  
 [DSS90-91]

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**Number of New Students with Disabilities by Campus and Type of Disability: 1990-91\***  
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UCI	7	7	5	0	1	5
UCLA	5	0	11	2	0	2
UCR	6	8	7	0	0	4
UCSD	2	6	3	0	0	1
UCSF	1	4	0	0	0	1
UCSB	2	7	0	0	0	1
UCSC	3	13	14	0	0	5
<b>Totals</b>	<b>42</b>	<b>90</b>	<b>94</b>	<b>4</b>	<b>2</b>	<b>37</b>

\* Data include only those students who are new to the University in 1990-91 (i.e., first-time freshmen, transfer, and graduate/professional school students) and who identified themselves as permanently disabled by requesting services at campus disabled student service program offices.

SJH (2/14/92)  
 IDSS90-91)

Table 1 (continued)

Campus	Other Communication Disability	Learning Disability	Campus Totals
UCB	0	79	180
UCD	0	61	96
UCI	0	14	39
UCLA	0	10	30
UCR	0	5	30
UCSD	0	7	19
UCSF	0	0	6
UCSB	0	24	34
UCSC	0	28	63
Totals	0	228	497

**The California State University  
Report to the Legislature on Assembly Bill 746:  
Services to Students with Disabilities**

**January 1992**

## **Background**

Assembly Bill 746 (Chapter 829, Statutes of 1987), was passed by the Legislature and signed by the Governor in September 1987. The intent of the legislation was to recognize through statute services to students with disabilities who are enrolled in California public postsecondary institutions. The legislation requires the postsecondary education segments to submit biennial reports regarding enrollment, retention, transition, and graduation rates of disabled students.

Pursuant to the enactment of Assembly Bill 746 (AB 746), an intersegmental committee was formed to coordinate the preparation and submission of these reports. The committee consisted of staff from the California State University (CSU), the California Community Colleges, the University of California and the California Postsecondary Education Commission. The committee periodically met to ensure comparable information will be provided in the reports mandated by AB 746 and discuss other issues relative to students with disabilities. It is the desire and expectation of the California State University that the committee continue to meet to address the needs of these students.

AB 746 requires the education segments to conduct biennially a survey of student and staff perceptions of the effectiveness of disabled student services programs. Each segment has developed a survey instrument appropriate for that institution while ensuring the results could be compared across segments. The CSU has developed its survey instrument and intends to submit a report summarizing the results of the survey in January 1993.

The following information provides a review by campus on the enrollment, transition, and graduation rates of disabled students. The numbers of "disabled students" or "students with disabilities" cited in this report refer only to those students with verified disabilities who requested and received service through Disabled Student Services programs. It is important to note that not all disabled students seek or require specialized services.

Each of the twenty CSU campuses provides specialized services to disabled students through a Disabled Student Services program. The services provided are those recommended in AB 746 and contained within the CSU systemwide policy entitled "Policy for the Provision of Services to Students with Disabilities"

## **The Progress of Disabled Students**

The CSU regularly conducts studies of the continuation of first-time freshman classes. The most recent of these publications, entitled "Those Who Stay; 1983 First-Time Freshmen" (Analytic Studies Division, CSU Office of the Chancellor, October 1990), provides a detailed presentation of the enrollment, continuation, and graduation of new first-time freshmen enrolling in the California State University in fall 1983. Since the CSU has collected information about disabled students every fall term since 1980, it is possible to compare the progress of first-time freshmen served by disabled student services programs in fall 1983 to the progress of all first-time freshmen entering in the same term. It is important that studies compare students at similar or identical levels of academic progress (such as first-time freshmen) since research has shown that students at different levels continue at different rates.

For the "1983 First-Time Freshmen" report, the 1983 first-time freshmen were followed for five years to determine how many have graduated or are still continuing. The graduation rate cited in the report is the proportion of the 1983 first-time freshmen who graduated after a specific number of years. An intermediate measure of student success is also available called the "continuation rate"; that is, the proportion of first-time freshmen who are still enrolled after a specified number of years. "Persistence" is the term used by the CSU to describe the sum of graduation and continuation. Analytic Studies research has demonstrated that the five-year persistence rate provides an excellent forecast of eventual graduation.



## Enrollment

Two tables are provided to describe enrollment. Table 1 shows, by campus, the number of disabled students served and the total number of students enrolled in fall 1983 compared with fall 1990. As the table shows, there was a dramatic growth in the number of disabled students served in fall 1990 as compared to 1983.

**Table 1**  
**Comparison of Enrollment of Students Served by**  
**Disabled Student Services Programs**  
**And Total CSU Enrollment**  
**Fall 1983 and 1990**

Campus	Disabled Students Served	Fall 1983 Total CSU Enrollment	Percent of Total	Disabled Students Served	Fall 1990 Total CSU Enrollment	Percent of Total
Bakersfield	36	3,383	0.9	229	5,443	4.2
Chico	181	14,129	1.3	399	16,641	2.4
Dominguez Hills	176	8,269	2.1	225	9,450	2.4
Fresno	185	16,293	1.1	302	19,962	1.5
Fullerton	302	22,997	1.3	446	25,602	1.7
Hayward	222	11,978	1.9	284	13,000	2.2
Humboldt	65	6,430	1.0	259	7,654	3.4
Long Beach	395	31,492	1.3	617	33,991	1.8
Los Angeles	245	20,539	1.2	332	21,596	1.5
Northridge	441	27,794	1.6	689	31,167	2.2
Pomona	156	16,701	2.6	207	19,472	1.1
Sacramento	323	21,636	1.5	656	26,339	2.5
San Bernardino	114	5,450	2.1	258	11,927	2.2
San Diego	382	32,494	1.2	827	35,489	2.3
San Francisco	288	23,966	1.2	512	29,340	1.7
San Jose	248	25,081	1.0	638	30,338	2.1
San Luis Obispo	224	15,624	1.4	784	17,756	4.4
San Marcos	—	—	—	11	448	2.5
Sonoma	113	5,380	2.1	270	7,627	3.5
Stanislaus	30	4,264	0.7	50	5,811	0.9
All Campuses	4,126	313,900	1.3	7,995	369,053	2.2

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Table 2 displays the five-year continuation rates, graduation rates, and persistence rates for the fall 1983 first-time freshmen served by disabled student services programs by campus. After five years, slightly less than half of these students were "persisters", that is, were still continuing as undergraduates or had earned a baccalaureate. Forty-four (21.6% of the entering group) of the 204 earned baccalaureate degrees as of fall 1988.

**Table 2**  
**Five-year Continuation Rates, Graduation Rates, and**  
**Persistence Rates of Fall 1983**  
**First-Time Freshmen Served by**  
**Disabled Student Services Programs by Campus**

Campus	Enrolled	Continuing		Graduated		Persistence
	Fall 1983	Number	Percent	Number	Percent	Rate Percent
Bakersfield	1	0	0.0	0	0.0	0 0
Chico	10	3	30.0	0	0.0	30.0
Dominguez Hills	1	0	0.0	0	0.0	0 0
Fresno	5	0	0.0	2	40.0	40 0
Fullerton	12	5	41.7	3	25.0	66 7
Hayward	13	4	30.8	3	23.1	53 8
Humboldt	6	3	50.0	1	16.7	66.7
Long Beach	27	9	33.3	6	22.2	55 6
Los Angeles	2	0	0 0	0	0 0	0 0
Northridge	47	19	40.4	3	6 4	46 8
Pomona	7	1	14 3	5	71 4	85 7
Sacramento	10	3	30.0	3	30 0	60 0
San Bernardino	4	1	25.0	0	0.0	25 0
San Diego	18	1	5 6	6	33 3	38 9
San Francisco	8	1	12 5	3	37.5	50 0
San Jose	1	0	0.0	0	0 0	0 0
San Luis Obispo	29	5	17 2	8	27 6	44 8
Sonoma	2	0	0.0	1	50 0	50 0
Stanislaus	1	0	0.0	0	0 0	0 0
Systemwide	204	55	27.0	44	21.6	48 5

Table 3 displays data for all first-time freshmen entering in fall 1983. After five years, slightly more than half of all fall 1983 first-time freshmen were "persisters". The differences between the overall persistence patterns of fall 1983 first-time freshmen and fall 1983 disabled first-time freshmen is statistically insignificant.

**Table 3.**  
**Five-Year Continuation Rates, Graduation Rates, and**  
**Persistence Rates of CSU Fall 1983 First-Time Freshmen by Campus**

Campus	Enrolled	Continuing		Graduated		Persistence
	Fall 1983	Number	Percent	Number	Percent	Rate Percent
Bakersfield	206	49	23.8	34	16.5	40.3
Chico	1,285	260	20.2	538	41.9	62.1
Dominguez Hills	366	96	26.2	51	13.9	40.2
Fresno	1,487	399	26.8	492	33.1	59.9
Fullerton	2,030	532	26.2	533	26.3	52.5
Hayward	748	174	23.3	184	24.6	47.9
Humboldt	519	129	24.9	132	25.4	50.3
Long Beach	2,554	765	30.0	539	21.1	51.1
Los Angeles	1,147	348	30.3	142	12.4	42.7
Northridge	2,861	871	30.4	457	16.0	46.4
Pomona	1,699	485	28.5	446	26.3	54.8
Sacramento	1,392	389	27.9	395	28.4	56.3
San Bernardino	344	64	18.6	76	22.1	40.7
San Diego	3,162	727	23.0	710	22.5	45.4
San Francisco	1,529	428	28.0	366	23.9	51.9
San Jose	1,836	586	31.9	422	23.0	54.9
San Luis Obispo	1,699	444	26.1	534	31.4	57.6
Sonoma	308	53	17.2	83	26.9	44.2
Stanislaus	271	40	14.8	85	31.3	46.1
Systemwide	25,443	6,839	26.9	6,219	24.4	51.4

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In Table 4, we show the expected number of disabled students who would have been continuing students if disabled students evidenced the same continuation rate as the overall first-time freshman class. Tables 5 and 6 show similar information regarding graduation and persistence patterns.

**Table 4.**  
**Comparison of Expected and Actual Numbers of**  
**Disabled Students Continuing as of Fall 1988**

Campus	Enrolled Fall 1983	Campus Continuation Rate Percent	Expected Disabled Continuation Number	Actual Disabled Continuation Number	Difference Number
Bakersfield	1	23.8	0	0	0
Chico	10	20.2	2	3	1
Dominguez Hills	1	26.2	0	0	0
Fresno	5	26.8	1	0	-1
Fullerton	12	26.2	3	5	2
Hayward	13	23.3	3	4	1
Humboldt	6	24.9	1	3	2
Long Beach	27	30.0	8	9	1
Los Angeles	2	30.3	1	0	-1
Northridge	47	30.4	14	19	5
Pomona	7	28.5	2	1	-1
Sacramento	10	27.9	3	3	0
San Bernardino	4	18.6	1	1	0
San Diego	18	23.0	4	1	-3
San Francisco	8	28.0	2	1	-1
San Jose	1	31.9	0	0	0
San Luis Obispo	29	26.1	8	5	-3
Sonoma	2	17.2	0	0	0
Stanislaus	1	14.8	0	0	0
Systemwide	204	26.9	55	55	0

$\chi^2 = 13.92$  with 18 degrees of freedom, not statistically significant

**Table 5.**  
**Comparison of Expected and Actual Numbers of**  
**Disabled Students Graduating**  
**as of Fall 1988**

Campus	Enrolled Fall 1983	Campus Graduation Rate Percent	Expected Disabled Graduates Number	Actual Disabled Graduates Number	Difference Number
Bakersfield	1	16.5	0	0	0
Chico	10	41.9	4	0	-4
Dominguez Hills	1	13.9	1	0	-1
Fresno	5	33.1	2	2	0
Fullerton	12	26.3	3	3	0
Hayward	13	24.6	3	3	0
Humboldt	6	25.4	2	1	-1
Long Beach	27	21.1	6	6	0
Los Angeles	2	12.4	2	0	-2
Northridge	47	16.0	8	3	-5
Pomona	7	26.3	2	5	3
Sacramento	10	28.4	3	3	0
San Bernardino	4	22.1	1	0	-1
San Diego	18	22.5	4	6	2
San Francisco	8	23.9	2	3	1
San Jose	1	23.0	0	0	0
San Luis Obispo	29	31.4	9	8	-1
Sonoma	2	26.9	1	1	0
Stanislaus	1	31.3	0	0	0
Systemwide	204	24.4	50	44	-6

$\chi^2 = 17.74$  with 16 degrees of freedom, not statistically significant

**Table 5.**  
**Comparison of Expected and Actual Numbers of**  
**Disabled Students Graduating**  
**as of Fall 1988**

Campus	Enrolled Fall 1983	Campus Graduation Rate Percent	Expected Disabled Graduates Number	Actual Disabled Graduates Number	Difference Number
Bakersfield	1	16.5	0	0	0
Chico	10	41.9	4	0	-4
Dominguez Hills	1	13.9	1	0	-1
Fresno	5	33.1	2	2	0
Fullerton	12	26.3	3	3	0
Hayward	13	24.6	3	3	0
Humboldt	6	25.4	2	1	-1
Long Beach	27	21.1	6	6	0
Los Angeles	2	12.4	2	0	-2
Northridge	47	16.0	8	3	-5
Pomona	7	26.3	2	5	3
Sacramento	10	28.4	3	3	0
San Bernardino	4	22.1	1	0	-1
San Diego	18	22.5	4	6	2
San Francisco	8	23.9	2	3	1
San Jose	1	23.0	0	0	0
San Luis Obispo	29	31.4	9	8	-1
Sonoma	2	26.9	1	1	0
Stanislaus	1	31.3	0	0	0
Systemwide	204	24.4	50	44	-6

$\chi^2 = 17.74$  with 18 degrees of freedom, not statistically significant



**Table 6.**  
**Comparison of Expected and Actual Numbers of**  
**First-Time Freshmen in DSS Programs Persisting**  
**as of Fall 1988**

Campus	Enrolled Fall 1983	Campus Persistence Rate Percent	Expected Disabled Persistence Number	Actual Disabled Persistence Number	Difference Number
Bakersfield	1	40.3	0	0	0
Chico	10	62.1	6	3	-3
Dominguez Hills	1	40.2	0	0	0
Fresno	5	59.9	3	2	-1
Fullerton	12	52.5	6	8	2
Hayward	13	47.9	6	7	1
Humboldt	6	50.3	3	4	1
Long Beach	27	51.1	14	15	1
Los Angeles	2	42.7	1	0	-1
Northridge	47	46.4	22	22	0
Pomona	7	54.8	4	6	2
Sacramento	10	56.3	6	6	0
San Bernardino	4	40.7	2	1	-1
San Diego	18	45.4	8	7	-1
San Francisco	8	51.9	4	4	0
San Jose	1	54.9	1	0	-1
San Luis Obispo	29	57.6	17	13	-4
Sonoma	2	44.2	1	1	0
Stanislaus	1	46.1	0	0	0
Systemwide	204	51.4	105	99	-6

$\chi^2 = 9.05$  with 18 degrees of freedom,  $p < .95$

## Summary

In summary, the systemwide data for first-time freshmen receiving services through the Disabled Student Services programs indicate that disabled students are proceeding at about the same rate as the population of all first-time freshmen entering at the same time.

Furthermore, the campus-specific data indicate that little difference exists between predictions of performance based on overall campus continuation, graduation, and persistence rates and the actual performance of disabled students. Thus, it appears that disabled students are continuing and graduating at rates expected given the campus-specific rates for all first-time freshmen. The actual number of disabled students who continued matriculation compared with the expected is the same at the systemwide level and at many CSU campuses.

## Transition of California Community College Students to the CSU

Transition data monitor those CSU students who transferred from a California community college. Table 7 displays figures for entering students which show that community college transfers made up nearly sixty percent (60%) of the new undergraduates who were served by Disabled Student Services programs in fall 1989 and fall 1990. In contrast, community college transfers were only about forty percent (40%) of all new undergraduates entering the CSU in those terms.

**Table 7**  
**Community College Transfers and**  
**New Undergraduates Served by**  
**Disabled Student Services Programs**  
**Fall 1989 and 1990**

Year	DSS New Undergrads	Community College Transfers	Percent of New Undergrads	CSU New Undergrads	Community College Transfers	Percent of New Undergrads
1989	869	519	59.7	68,304	28,331	41.5
1990	988	577	58.4	67,230	29,370	43.7

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## Persistence Patterns of Community College Transfers

The persistence patterns of California Community College disabled students entering the CSU in fall 1983 and receiving specialized services appears to be similar to that of the general community college transfer population. Table 8 presents continuation, graduation and persistence information about the fall 1983 disabled community college transfers. For comparison, the table also provides continuation, graduation and persistence information about the fall 1985 class of community college transfers.

**Table 8**  
**Comparison of Five-Year Continuation, Graduation, and Persistence Rates**  
**Fall 1983 Community College Transfers Served by Disabled Student Services Programs**  
**and All Fall 1985 Community College Transfers**

	Disabled Services	All CSU
Fall 1983 First-Time Freshmen	356	29,682
Percent of Total Enrolled after five years.		
Undergraduate		
Freshman	0.0	0.1
Sophomore	0.0	0.1
Junior	0.8	1.0
Senior	6.7	8.0
Total	7.6	9.2
Postbaccalaureate/Graduate	5.9	4.8
Total Enrolled	13.5	13.9
Percent of Total Earning Degree.		
Bachelor's Only	46.9	50.6
Bachelor's and		
Master's	2.0	0.7
Persistence Rate	56.5	59.8

## By -Campus Persistence of Community College Transfers Served by Disabled Student Services

Table 9 presents the five-year continuation, graduation and persistence rates of fall 1983 community college transfers who were served by disabled student programs. Table 10 presents an analysis of whether fall 1983 community college students who were served by disabled student programs were graduated at a statistically different rate than community college students overall. In terms of similarity to the population of all community college transfers entering the CSU, community college transfers in Disabled Student Services programs appear to perform at about the rate that would be expected generally of community college transfers.

**Table 9**  
**Five-year Continuation Rates, Graduation Rates, and**  
**Persistence Rates Of CSU Fall 1983 Disabled**  
**Community College Transfers by CSU Campus**

Campus	Enrolled	Continuing		Graduated		Persistence
	Fall 1983	Number	Percent	Number	Percent	Rate Percent
Bakersfield	2	0	0 0	1	50 0	50 0
Chico	20	0	0 0	14	70.0	70 0
Dominguez Hills	18	1	6.3	7	43 8	50 0
Fresno	20	1	5.0	10	50 0	55 0
Fullerton	23	1	4.3	15	65.2	69 6
Hayward	25	5	20.0	14	56 0	76 0
Humboldt	4	0	0.0	4	100.0	100 0
Long Beach	42	3	7.1	15	35.7	42 9
Los Angeles	12	1	8.3	3	25 0	33 3
Northridge	21	2	9.5	6	28 6	38 1
Pomona	8	1	12.5	6	75 0	87 5
Sacramento	34	2	5.9	13	38.2	44 1
San Bernardino	19	1	5 3	8	42 1	47 4
San Diego	36	0	0.0	16	44 4	44 4
San Francisco	25	5	20.0	8	32 0	52 0
San Jose	22	2	9.1	13	59 1	68.2
San Luis Obispo	11	0	0 0	4	36 4	36 4
Sonoma	11	1	9 1	6	54 5	63 6
Stanislaus	5	1	20 0	3	60 0	80 0
Systemwide	356	27	7 6	166	46 9	54 5

**Table 9**  
**Five-year Continuation Rates, Graduation Rates, and**  
**Persistence Rates Of CSU Fall 1983 Disabled**  
**Community College Transfers by CSU Campus**

Campus	Enrolled	Continuing		Graduated		Persistence
	Fall 1983	Number	Percent	Number	Percent	Rate Percent
Bakersfield	2	0	0.0	1	50.0	50.0
Chico	20	0	0.0	14	70.0	70.0
Dominguez Hills	16	1	6.3	7	43.8	50.0
Fresno	20	1	5.0	10	50.0	55.0
Fullerton	23	1	4.3	15	65.2	69.6
Hayward	25	5	20.0	14	56.0	76.0
Humboldt	4	0	0.0	4	100.0	100.0
Long Beach	42	3	7.1	15	35.7	42.9
Los Angeles	12	1	8.3	3	25.0	33.3
Northridge	21	2	9.5	6	28.6	38.1
Pomona	8	1	12.5	6	75.0	87.5
Sacramento	34	2	5.9	13	38.2	44.1
San Bernardino	19	1	5.3	8	42.1	47.4
San Diego	36	0	0.0	16	44.4	44.4
San Francisco	25	5	20.0	8	32.0	52.0
San Jose	22	2	9.1	13	59.1	68.2
San Luis Obispo	11	0	0.0	4	36.4	36.4
Sonoma	11	1	9.1	6	54.5	63.6
Stanislaus	5	1	20.0	3	60.0	80.0
Systemwide	356	27	7.6	166	46.9	54.5

**Table 10**  
**Comparison of Expected and Actual Numbers of**  
**Fall 1983 California Community College Transfer Disabled Students**  
**Graduating**  
**as of Fall 1990**

Campus	Enrolled Fall 1985	Campus Degree Rate Percent	Expected Disabled Degrees Number	Actual Disabled Degrees Number	Difference Number
Bakersfield	2	48.4	1	1	0
Chico	20	61.0	12	14	2
Dominguez Hills	16	31.3	5	7	2
Fresno	20	58.1	12	10	-2
Fullerton	23	53.3	12	15	3
Hayward	25	50.9	13	14	1
Humboldt	4	53.5	2	4	2
Long Beach	42	49.1	21	15	-6
Los Angeles	12	31.0	4	3	-1
Northridge	21	41.8	9	6	-3
Pomona	8	43.5	3	6	3
Sacramento	34	56.7	19	13	-6
San Bernardino	19	47.5	9	8	-1
San Diego	36	53.3	19	16	-3
San Francisco	25	51.4	13	8	-5
San Jose	22	52.0	11	13	-2
San Luis Obispo	11	56.4	6	4	-2
Sonoma	11	52.3	6	6	0
Stanislaus	5	50.5	3	3	0
Systemwide	356	50.6	180	166	-14

$\chi^2 = 18.19$  with 18 degrees of freedom; not statistically significant

### Conclusion

The comparative analyses of fall 1983 first-time freshmen and community college transfers who made use of Disabled Student Services programs and similar student populations indicate that, for the most part, students in such programs proceed academically at about the same pace as students who do not require such assistance.

**Chancellor's Office  
California Community College  
Report to the Legislature on Assembly Bill 746  
Disabled Students Programs & Services  
April 1992**

**Background**

The Legislature passed and the Governor signed Assembly Bill 746 (Chapter 826, Statutes of 1987) in September 1987. The Legislature intended to recognize, through statute, services to students with disabilities who are enrolled in California public postsecondary institutions. The legislation requires the postsecondary education segments to submit biennial reports regarding enrollment, retention, transition, and graduation rates for disabled students.

An intersegmental committee was formed to coordinate the preparation and submission of reports according to Assembly Bill 746 (AB 746). The committee consisted of staff from the California Community Colleges Chancellor's Office, California State University, the University of California and the California Postsecondary Education Commission.

AB 746 requires education segments to conduct biennially a survey of student and staff perceptions of the effectiveness of services to student with disabilities. The California Community College Chancellor's Office coordinates the survey with the accreditation cycle of the college. The survey takes place in the year of the self study for accreditation. Approximately 20 college are surveyed annually.

In response to AB 746, the California Community College Chancellor's Office presents the following information: 1) Disabled Student Programs and Services (DSP&S) Annual Report for 1990-91, 2) Student and Faculty Survey Outcomes, 3) 1990-91 DSP&S Student Count by College, and 4) 1990-91 DSP&S Count by Disability Group and College





## **Student Services and Special Programs**

### **Disabled Students Programs and Services**

*Annual Report 1990-91*

**Disabled Students Programs and Services (DSP&S) Unit**  
**Student Services and Special Programs Division**

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# *DISABLED STUDENTS PROGRAMS AND SERVICES*

*Annual Report 1990-91*

## **Introduction**

Prior to 1976, fewer than 5,000 students with disabilities attended the California Community Colleges. In 1976, the California Legislature established a comprehensive framework for the Disabled Students Programs and Services (DSP&S) through the passage of Assembly Bill 77 (Lanterman), providing community colleges funding for support services, specialized instruction, and educational accommodations made necessary by the functional limitations of students with disabilities. During 1990-91, with an appropriation of \$34 million, DSP&S served more than 52,000 students at the 106 community colleges. California remains a leader in the education of students with disabilities. It is among the few states with systemwide funding and legislation for services to students with disabilities and systemwide regulations, policies, and staff support.

## **Access**

Over the past 15 years, access to higher education for students with disabilities has increased tremendously. This increase is attributed to numerous factors including: the success of students with disabilities who were educated prior to this period and successfully mainstreamed into society; the passage of Section 504 of the Rehabilitation Act of 1973; and in California, the enactment of the aforementioned AB 77. The passage of the Americans with Disabilities Act in 1990 set the stage for additional and dramatic increases in the numbers of students with disabilities seeking admission into community colleges. It mandates that persons with disabilities shall have full access to services and programs available to the general public.

The DSP&S Unit of the Chancellor's Office, in close cooperation with DSP&S staff at the colleges, is seeking to improve access to education for students with disabilities by examining several key program areas and developing recommendations for new strategies and program initiatives. A summary of these efforts follows.

## **High-Tech Centers**

According to studies by Engen-Wedin, Margolis and Collins (1987), and Saka (1987), access to computers improves the academic performance of students with disabilities in postsecondary education. Through its High-Tech Center (HTC) programs, DSP&S utilizes advances in adapted computer technology to permit students with disabilities access to critical learning resources. During 1990-91, 83 colleges offered computer-assisted instruction (CAI) and/or adapted computer services. DSP&S staff who work with these students reported that the most discernible outcome observed among students receiving HTC services is an increased confidence in their ability to persist in post-secondary education.

*A Comprehensive Review*

A 1989 Chancellor's Office study of students served in high-tech centers showed that 31% listed transfer to a four-year institution as a goal, and an additional 42% were enrolled in programs related to employment or leading to employment within two years. Nearly 65% of the students in that survey reported a greater ease in their use of computers after receiving HTC services, and 55% stated that access to computers was an important factor that would assist them to accomplish their educational objectives.

*Serving Students with Learning Disabilities*

Concerns about student access and equity were the impetus for developing a specific program component to improve and standardize procedures for identifying community college students with learning disabilities. A learning disability is a persistent condition of presumed neurological dysfunction which continues despite instruction in standard classroom situations. Adults with learning disabilities have average to above-average intellectual ability, a severe processing deficit, and a severe aptitude-achievement discrepancy. Almost one-third of the students served by DSP&S in 1990-91 were learning disabled, an increase of almost ten percent since 1988-89. The Chancellor's Office is conducting a study of assessment instruments used by the colleges in the learning disabilities eligibility process. The purpose of the study is to identify and expand the number of procedures/instruments in use, and to include assessment measures which may be more appropriate for an increasingly diverse student population.

In 1987, the State Legislature mandated that, for a four-year period, the colleges must submit an annual report on the number of students who were assessed for learning disabilities in the California Community Colleges. The report was intended to determine whether the assessment model had a disproportionate impact on any group based on that group's race, ethnicity, gender, or age. The study has been concluded, and its only significant finding was that Asian students and older adults are underreferred and thus underidentified as learning disabled. An aggregated report summarizing the findings has been submitted by the Chancellor's Office to the California Postsecondary Education Commission for transmittal to the Legislature.

*Serving Students with Psychological Disabilities*

According to the Association on Handicapped Student Services Programs in Postsecondary Education (ASHSSPPE), in spite of the clear federal mandate to include students with psychological disabilities among those students with disabilities served in postsecondary education, many support services are not accessible to this population. However, it reports that many educational institutions nationwide are beginning to serve students with psychological disabilities through offices that provide identical accommodations to students with other served disabilities. As a result, questions are frequently raised on campuses about role definition and about how college staff can resolve problems associated with this population. Program development related to funding

*Disabled Students Programs and Services*

DSP&S services for students with psychological disabilities was initiated in 1991, based on task force recommendations and Chancellor's Office legal opinions regarding the omission of this population from Title 5 regulations for DSP&S. Data on this population continues to be gathered at four model service sites that were established through a competitive proposal process in 1990. The Chancellor's Office is seeking revisions to Title 5 that will permit funding of services for this population. In 1991, a new *Resource Guide for Serving Students with Psychological Disabilities in the California Community Colleges* was disseminated to the colleges by the Chancellor's Office.

*Serving Students Who Are Developmentally Delayed Learners*

In 1990, a Chancellor's Office Task Force on Developmentally Delayed Learners (DDL) undertook several program development activities to provide further access and accommodations for these students. A working definition of a developmentally delayed learner is a student who exhibits below-average intellectual functioning and potential for measurable achievement in instructional and employment settings. Primary accomplishments of the task force to date include completion of a survey of services to students identified as DDL and general agreement on broad criteria for defining DDL. The task force will be addressing issues of curricula, interagency coordination, and core service models during the upcoming year. Additionally, the task force is conducting a study to determine how the use of the proposed definition for DDL will impact existing program activities and services for students.

*Serving Students Who Are Deaf or Hearing Impaired*

In 1990-91, in response to requests from the districts and from the California Association of Postsecondary Educators of the Disabled (CAPED), the Chancellor's Office initiated a task force on Services to Deaf Students because of concern that students who are deaf were not receiving adequate support in their educational pursuits at the community colleges. The task force is developing a comprehensive plan for the delivery of services and instruction to deaf and hearing-impaired students which will include interpreter service costs, staffing patterns, and evaluation methods. The plan is needed to ensure access to deaf and hearing impaired students as required by federal and State regulations. Assessment strategies for deaf students are being reviewed as well, and alternative methods of serving this population are being explored. One of the most promising alternatives being examined is the establishment of regional resource centers to consolidate resources and coordinate support to colleges in the provision of the mandated services to students who are deaf or hearing impaired.

## A Comprehensive Review

**Student Retention, Persistence, and Outcomes**

A student with a disability is a person enrolled at a community college who has a verified mental or physical impairment which limits one or more major life activities, and which imposes a functional limitation in the educational environment. Functional limitation means a condition which prevents a student with a disability from fully benefiting from classes, activities, or services regularly offered by the college to nondisabled students, without specific additional support services or instruction. The role of DSP&S is to provide support services and accommodations to students with disabilities so that they can participate fully and benefit equitably from the college experience.

Student outcomes such as: 1) *persistence*: the proportion of students who completed a term and enrolled in the subsequent term; 2) *retention*: the ratio of units successfully completed to units attempted; and 3) *grade point averages*, are reviewed to determine if the provisions of DSP&S services enable students with disabilities to perform on a comparable level with nondisabled students.

In 1990, the Chancellor's Office Research and Analysis Unit, in conjunction with the Student Services and Special Programs Division, conducted a study to determine whether students served by DSP&S perform as well as the general student population with similar entering skills and socioeconomic backgrounds. The data on the 1989-90 community college population confirmed findings from previous studies showing that students with disabilities persist to the next academic term and complete courses at rates similar to that of the general student body.

This same study also provided data to compare the average cumulative grade point average (GPA) of students with disabilities and that of the general student population. With the exception of those students above the freshmen level, DSP&S students had similar or higher GPAs than the general student body, as illustrated in Table 1.

**TABLE 1**  
**DSP&S Student Outcomes**  
**1989-90**

	<b>DSP&amp;S</b>	<b>General Student Population</b>
<b>Retention</b>		
> 13 grade	92	89
13 grade	89	.92
< 13 grade	86	92
<b>Persistence</b>		
> 13 grade	76	84
13 grade	.84	79
< 13 grade	86	76
<b>Grade Point Average</b>		
> 13 grade	2.95	2.99
13 grade	2.38	2.08
< 13 grade	2.05	1.90

*Disabled Students Programs and Services*

More recently, the 1990-91 Management Information Systems (MIS) data derived from 53 colleges show the overall GPA for DSP&S students and the retention rates are consistent with those of the general student population.

**Student Equity**

Although the California Community Colleges have set the standards by which other educational systems (national and international) are measured, the community colleges are experiencing increasing difficulty offering legally mandated services to students with disabilities. The cost of providing the adequate level of services necessary for students with disabilities to have access to the educational offerings of the college have exceeded the available allocation of funds. Therefore, colleges have provided increasing amounts of local college revenues to accommodate the growing numbers of students with high-cost disabilities, such as the learning disabled, deaf or hearing impaired, and students with acquired brain injuries. During the past three years, State funding for DSP&S programs has increased by 15 percent. During this same time, the amount of local college revenues used in DSP&S programs have increased by 90 percent. The increase in local college revenues used in DSP&S programs is illustrated in Table 2.

**TABLE 2**  
**College Effort**

1988-89	\$4,552,262
1989-90	\$6,332,845
1990-91	\$8,664,329

The percentage of growth in the number of students with disabilities being served by DSP&S programs for 1988-89 through 1990-91 is illustrated in Table 3.

**TABLE 3**  
**Student Count**  
**1990-91**

Category of Disability	1988-89	1989-90	1990-91	Percent of Change
Mobility	13,058	12,295	12,927	1 00
Vision	2,387	2,607	2,617	9 64
Hearing	3,007	3,108	3,224	7.22
Speech	766	746	756	-1.31
Learning Disabled	11,496	13,445	15,975	38 96
Acquired Brain Injured	3,030	3,713	4,182	38 02
Dev Delayed Learners	6,990	7,125	7,219	3 28
Other	5,359	5,330	5,582	4.16
<b>Total</b>	<b>46,093</b>	<b>48,369</b>	<b>52,482</b>	<b>13.86</b>

*A Comprehensive Review*

Students with disabilities remain underrepresented in the community colleges of California. Currently, students served by DSP&S programs represent about 4% of the student population while the Department of Social Services and the Department of Rehabilitation estimate the numbers of persons with disabilities in California to be between 10% and 17%. The Legislature, through Assembly Concurrent Resolution 3 (1986), AB 746 (1987), and AB 1725, continues to direct the colleges to take affirmative action to decrease underrepresentation. The Board of Governors and community college districts are including students with disabilities in all activities and resources that target underrepresented students and student diversity.

The Chancellor's Office has been addressing the need to increase funding for DSP&S. At present, funding is based on a formula driven by the disability of the student. The actual costs of serving students with the same disability vary, based on the particular educationally-related limitations a student experiences in the educational environment. AB 746 requires the colleges and other institutions to develop funding formulas that reflect the actual costs of serving students with disabilities, rather than funding based on the disability alone.

The first initiative in this area was the revision of the DSP&S allocation formula, which was approved by the Board of Governors in July 1989. The new formula streamlined the allocation of DSP&S funds and emphasized weighted student count by disability. The weighted student count estimated the cost of serving students with varying disabilities. Thus, it was a major step toward implementing the requirements of AB 746.

A field-based task force recently completed work on revisions of the weights utilized in the formula. The revisions in the weights will allocate more funds to colleges serving students known to have "high cost" needs, namely deaf, acquired-brain injured, and learning-disabled students. The task force is also reviewing mechanisms for funding special-class apportionment.

The re-authorized Carl D. Perkins Vocational and Applied Technology Education Act (VATEA) provides federal funding to increase colleges' efforts to serve students from "special populations." However, one of the major changes in VATEA is that it no longer includes funds set aside for students with disabilities. Since students with disabilities are included in the definition of "special populations," the Chancellor's Office DSP&S staff is reviewing the college and district vocational education plans to ensure that adequate services are in place to serve students with disabilities.

In addition, the Chancellor's Office is in the process of addressing the lack of funding for DSP&S services to students with psychological disabilities. Currently, this population is not defined in the Title 5 regulations as eligible for DSP&S-funded services. Despite this omission, colleges are required by State and federal nondiscrimination laws to provide academic adjustments and other related services to these students. Colleges do not receive direct excess cost reimbursements for serving students with psychological disabilities and must pay for these accommodations with



*Disabled Students Programs and Services*

local funds. Therefore, the Chancellor's Office has proposed that, contingent on new funding, this population be added to the Title 5 regulations.

**Conclusion**

Recent studies, student surveys, and anecdotal evidence indicate that DSP&S is having a positive impact on the access, retention, persistence, and outcomes of students with disabilities. There appears to be increased coordination between DSP&S programs and other college support services, as well as stronger integration of students with disabilities into the college mainstream environment.

Full implementation of the Management Information System is essential to: 1) monitor and report student outcome data; 2) facilitate the evaluation of the effectiveness of DSP&S programs; and 3) fund by actual cost of services to students with disabilities. The Chancellor's Office will continue to collaborate with the districts on studies related to DSP&S student population, services received, and student performance.

**DISABLED STUDENT PROGRAM & SERVICES  
STUDENT AND FACULTY SURVEY RESULTS  
April 1992**

**INTRODUCTION**

The Chancellor's Office received questionnaires from 540 students and 1,098 faculty/staff from 18 community colleges for the 1990-91 year. Students and faculty rated the effectiveness of the DSP&S program and the performance of DSP&S staff on their campus. Students with the following disabilities participated in the survey: Vision, Hearing Impaired, Mobility, Learning Disability, Speech/Other Communication, Acquired Brain Injury, and Other Functional Impairments.

The following is a summary of student demographics, student ratings of DSP&S staff, campus climate and DSP&S services. Lastly, there is a summary of faculty/staff perceptions of DSP&S staff and services.

**Student Demographics**

**Students by Disability  
N = 540**

Disability	Percent
Learning Disability	35
Mobility Impairments	18
Other Health Impairments	18
Acquired Brain Injuries	10
Hearing Impairments	9
Visual Impairments	7
Speech Impairments	3
	100

**Students by Gender  
N = 540**

Gender	Percent
Female	57
Male	43
	100

Ethnicity of Students  
N = 540

Ethnicity	Percent
White	72
Black/African American	11
Hispanic/Latino	8
Other	4
Asian/Pacific Islander	3
American Indian	2
	100

### Age of Students

The average age for all disability groups was 34 years.

### Student Rating for DSP&S Staff

Students in all disability groups rate DSP&S staff as "knowledgeable" relative to their disability. They also rate staff as "available" and "responsive" to their needs.

### Student Rating of General Campus

Students in all disability groups rate instructors as "willing" to make special accommodations. They also rate their campus as "responsive" to architectural barrier removal.

### Student Satisfaction with DSP&S Services

The survey asked students to rate the availability and effectiveness of each service provided by their campus. Availability means the student obtains service when he/she needed it. Effectiveness means the student feels the service was useful.

Students in all disability groups rate the availability and effectiveness of services either "fair" or "good". Registration, counseling, and specialized orientation services received the highest ratings. On the other hand, notetakers, on-campus transportation, and special parking coordination received the lowest rating.

### Faculty and Staff Perceptions of Program Effectiveness

A review of faculty and staff responses suggest the following:

- o Faculty receive proper assistance from DSP&S staff when arranging for special accommodations for students.
- o Faculty feel students with disabilities are integrated appropriately into regular classes .
- o Campus administrators are responsive to the needs of students with disabilities for physical access and the creation of a barrier free environment in a timely manner.
- o Faculty and staff perceive the need for DSP&S to better integrate and become a permanent part of the total college operation.
- o Faculty and staff feel there is adequate publicity about DSP&S services on the campuses.

## 1990-91 DSP&amp;S STUDENT COUNT

(Total 52,482)

ALAMEDA	234	LOS ANGELES VALLEY	602
ALLAN HANCOCK	534	LOS MEDANOS	283
AMERICAN RIVER	897	MARIN	778
ANTELOPE VALLEY	422	MENDOCINO	150
BAKERSFIELD	557	MERCED	377
BARSTOW	85	MERRITT	271
BUTTE	836	MIRA COSTA	246
CABRILLO	1,014	MISSION	163
CANADA	310	MODESTO JUNIOR	505
CANYONS, COLLEGE OF THE	156	MONTEREY PENINSULA	426
CERRITOS	498	MOORPARK	321
CERRO COSO	240	MT. SAN ANTONIO	852
CHABOT-HAYWARD	443	MT. SAN JACINTO	221
CHAFFEY	1,424	NAPA	1,132
CITRUS	274	OHLONE	347
COASTLINE	380	ORANGE COAST	595
COLUMBIA	317	OXNARD	343
COMPTON	103	PALO VERDE	18
CONTRA COSTA	372	PALOMAR	432
COSUMNES RIVER	163	PASADENA CITY	667
CRAFTON HILLS	156	PORTERVILLE	318
CUESTA	316	RANCHO SANTIAGO	874
CUYAMACA	234	REDWOODS, COLLEGE OF THE	1,631
CYPRESS	387	RIO HONDO	261
DE ANZA	1,779	RIVERSIDE	416
DESERT, COLLEGE OF THE	150	SACRAMENTO CITY	537
DIABLO VALLEY	628	SADDLEBACK	726
EAST LOS ANGELES	294	SAN BERNARDINO VALLEY	532
EL CAMINO	737	SAN DIEGO CITY	373
EVERGREEN	263	SAN DIEGO MESA	530
FEATHER RIVER	154	SAN DIEGO MIRAMAR	1,529
FOOTHILL	1,976	SAN FRANCISCO CITY	1,219
FRESNO CITY	918	SAN JOAQUIN DELTA	778
FULLERTON	1,215	SAN JOSE CITY	326
GAVILAN	639	SAN MATEO, COLLEGE OF	351
GLENDALE	747	SANTA BARBARA CITY	597
GOLDEN WEST	310	SANTA MONICA	637
GROSSMONT	567	SANTA ROSA JUNIOR	563
HARTNELL	327	SEQUOIAS, COLLEGE OF THE	598
IMPERIAL VALLEY	238	SHASTA	831
IRVINE VALLEY	196	SIERRA	657
KINGS RIVER	231	SISKIYOU, COLLEGE OF THE	278
LAKE TAHOE	132	SKYLINE	271
LANEY	288	SOLANO	347
LAS POSITAS	123	SOUTHWESTERN	195
LASSEN	259	TAFT	203
LONG BEACH CITY	1,011	VENTURA	676
LOS ANGELES CITY	537	VICTOR VALLEY	235
LOS ANGELES HARBOR	231	VISTA	581
LOS ANGELES MISSION	161	WEST HILLS	89
LOS ANGELES PIERCE	536	WEST LOS ANGELES	205
LOS ANGELES SOUTHWEST	89	WEST VALLEY	530
LOS ANGELES TRADE-TECH	291	YUBA	480

## 1990-91 PRIMARY STUDENT COUNTS (PAGE 1)

COLLEGE	Mobility	Vision	Other	Hearing	Speech	LD	ABI	DDL	TOTAL
ALAMEDA	31	9	14	2	2	63	40	73	234
ALLAN HANCOCK	27	8	27	9	0	211	9	243	534
AMERICAN RIVER	318	33	234	46	0	241	19	6	897
ANTELOPE VALLEY	103	10	92	35	0	162	13	7	422
BAKERFIELD	142	27	122	28	4	201	22	11	557
BARSTOW	2	0	13	2	2	45	3	18	85
BUTTE	217	22	22	24	2	208	43	298	836
CABRILLO	333	23	14	26	12	260	191	155	1,014
CANADA	142	6	0	1	0	92	68	1	310
CANYONS	11	9	29	10	14	64	19	0	156
CERRITOS	209	15	29	31	25	40	86	63	498
CERRO COSO	62	6	24	9	0	126	6	7	240
CHABOT-HAYWARD	130	27	21	19	1	235	10	0	443
CHAFFEE	188	39	52	16	2	333	154	640	1,424
CITRUS	53	11	9	12	25	121	26	17	274
COASTLINE	0	0	0	0	0	0	236	144	380
COLUMBIA	100	0	148	1	0	51	9	8	317
COMPTON	8	2	13	0	0	20	1	59	103
CONTRA COSTA	55	13	39	15	0	138	15	97	372
COSUMNES RIVER	34	13	17	5	0	83	11	0	163
CRAFTON HILLS	31	7	41	5	2	58	9	3	156
CUESTA	30	5	9	7	2	248	15	0	316
CUYAMACA	56	4	1	18	0	71	9	75	234
CYPRESS	149	22	21	38	1	119	14	23	387
DE ANZA	851	40	184	74	3	326	145	156	1,779
DESERT	42	7	7	17	1	47	17	12	150
DIABLO VALLEY	87	23	26	26	1	390	37	38	628
EAST LA	85	19	78	7	4	69	18	14	294
EL CAMINO	170	25	79	71	0	316	59	17	737
EVERGREEN	71	9	40	16	30	63	23	11	263
FEATHER RIVER	26	6	30	5	0	69	3	15	154
FOOTHILL	193	265	865	105	7	94	349	98	1,976
FRESNO CITY	146	39	237	41	10	336	49	60	918
FULLERTON	103	324	57	26	14	198	25	468	1,215
GAVILAN	230	6	41	8	4	162	48	140	639
GLANDALE	189	17	59	23	29	255	46	129	747
GOLDEN WEST	94	13	35	135	0	29	4	0	310
GROSSMONT	146	35	20	20	35	258	53	0	567
HARTNELL	93	11	68	7	2	103	13	30	327
IMPERIAL VALLEY	14	20	47	11	0	84	3	59	238
IRVINE VALLEY	70	9	3	12	2	94	6	0	196
KINGS RIVER	16	5	44	12	3	95	17	39	231
LAKE TAHOE	4	5	6	7	0	94	5	11	132
LANEY	74	23	18	55	2	93	12	11	288
LAS POSITAS	14	6	8	5	1	87	1	1	123
LASSEN	72	4	33	5	0	82	11	52	259
LONG BEACH CITY	358	21	39	87	38	96	18	354	1,011
LA CITY	153	97	72	9	6	186	11	3	537
LA HARBOR	33	10	33	5	0	124	20	6	231
LA MISSION	34	7	36	11	3	56	4	10	161
LA PIERCE	134	20	56	107	0	162	27	30	536
LA SOUTHWEST	34	5	15	2	0	15	3	15	89
LA TRADE-TECH	51	2	62	125	0	46	3	2	291
LA VALLEY	209	39	107	13	4	143	61	26	602
LOS MEDANOS	77	5	20	8	3	161	8	1	283

## 1990-91 PRIMARY STUDENT COUNTS (PAGE 2)

COLLEGE	Mobility	Vision	Other	Hearing	Speech	LD	ABI	DDL	TOTAL
MARIN	213	15	24	143	4	175	159	45	778
MENDOCINO	24	1	13	7	1	59	0	45	150
MERCED	101	11	30	17	0	56	28	134	377
MERRITT	48	18	9	3	2	137	49	5	271
MIRA COSTA	38	5	12	6	0	74	9	102	246
MISSION	40	2	2	13	12	77	4	13	163
MODESTO JUNIOR	61	21	15	29	0	129	50	200	505
MONTEREY PENINSULA	47	14	50	23	4	202	52	34	426
MOORPARK	59	13	47	11	4	140	27	20	321
MT. SAN ANTONIO	282	28	147	74	22	254	39	6	852
MT. SAN JACINTO	66	8	31	12	0	92	12	0	221
NAPA	553	9	69	22	2	263	19	195	1,132
OHLONE	189	12	7	129	0	0	9	1	347
ORANGE COAST	155	16	33	24	36	289	42	0	595
OKNARD	33	9	50	15	2	136	8	90	343
PALO VERDE	9	1	0	3	0	1	1	3	18
PALOMAR	53	20	52	28	9	172	57	41	432
PASADENA CITY	152	27	0	56	48	332	34	18	667
PORTERVILLE	159	2	52	10	0	82	12	1	318
RANCHO SANTIAGO	243	37	87	58	53	312	75	9	874
REDWOODS	621	44	47	72	20	534	155	138	1,631
RIO HONDO	36	19	15	27	0	81	24	59	261
RIVERSIDE	163	24	39	85	0	90	15	0	416
SACRAMENTO CITY	84	21	119	11	7	279	16	0	537
SADDLEBACK	307	18	52	76	1	197	62	13	726
SAN BERNARDINO VALLEY	157	22	91	19	1	198	35	9	532
SAN DIEGO CITY	54	41	33	30	9	177	17	12	373
SAN DIEGO MESA	116	13	31	102	9	202	45	12	530
SAN DIEGO MIRAMAR	174	256	177	167	0	61	188	506	1,529
SAN FRANCISCO	132	99	136	128	86	236	53	349	1,219
SAN JOAQUIN DELTA	105	20	53	34	1	118	52	395	778
SAN JOSE CITY	85	14	29	51	17	67	47	16	326
SAN MATEO	150	8	27	5	0	84	77	0	351
SANTA BARBARA CITY	156	13	19	15	2	374	13	5	597
SANTA MONICA	51	21	47	18	17	261	99	123	637
SANTA ROSA JUNIOR	120	26	1	35	1	256	112	12	563
SEQUOIAS	210	36	66	25	7	194	26	34	598
SHASTA	248	21	82	33	0	106	12	329	831
SIERRA	168	6	44	20	1	312	22	84	657
SISKIYOU	80	4	62	1	3	49	7	72	278
SKYLINE	109	9	20	10	6	109	6	2	271
SOLANO	65	15	81	15	2	96	24	49	347
SOUTHWESTERN	42	8	23	6	16	82	15	3	195
TAFT	9	4	4	0	0	48	4	134	203
VENTURA	111	21	19	33	0	421	54	17	676
VICTOR VALLEY	55	7	16	5	0	125	14	13	235
VISTA	241	93	27	63	2	4	73	78	581
WEST HILLS	15	3	2	0	0	51	4	14	89
WEST LA	86	9	14	2	1	83	1	9	205
WEST VALLEY	87	14	29	24	52	244	76	4	530
YUBA	61	11	31	15	0	331	21	10	480
TOTAL	12927	2617	5582	3224	756	15,975	4,182	7,219	52,482

*Item 6070-101-001, Supplemental Report*

**Appendix C**      *Language to the 1988 State Budget Act*

It is the intent of the Legislature that community colleges provide support and instructional services to students with learning disabilities. It is further the intent of the Legislature that community colleges continue the eligibility model implemented statewide in 1987-88 in a manner which affirms the state's commitment to educational equity and ensures accuracy and fairness in determining student eligibility for the program. In keeping with these goals, the Chancellor's Office shall do all of the following:

*Data Collection.* Prior to September 30, 1988, the Chancellor's Office shall report to the California Postsecondary Education Commission (CPEC), the Legislative Analyst's Office, and the Department of Finance on the number, ethnicity, gender, disability, and age of individuals referred, identified, and receiving services as learning disabled (LD) students during the 1987-88 fiscal year. By February 1, 1989, CPEC shall review, comment, and make recommendations to the legislative budget and policy committees based on these data.

*Evaluation.* CPEC shall evaluate and report on the impact of the LD model on LD student eligibility based on data collected between the 1987-88 through 1990-91 academic years. Prior to January 1, 1992, the Chancellor's Office shall provide data to CPEC on the number, ethnicity, gender, disability, and age of individuals who were referred, identified, and/or received services as LD students in each academic year. CPEC shall review and comment to the legislative budget and policy committees on this report by March 1, 1992.

It is the intent of the Legislature that in the development of its review, CPEC shall convene an advisory committee composed of professionals with expertise in (1) psychometric testing and evaluation with respect to learning disabled adults, (2) the impact of psychometric assessment instruments on minority group students.



# Appendix D

## *Material from the Commission's Two Prior Reports on Learning Disabilities*

NOTE The following material is reproduced from pages 2-4 and pages 6-8 of *Comments on the Community Colleges' Study of Students with Learning Disabilities* (California Postsecondary Education Commission, 1989)

### **Development of the community colleges' learning disabilities project and model**

The State Learning Disabilities Project of the California Community College's Chancellor's Office stemmed from a 1982 study by the Department of Finance, which concluded that the community colleges lacked consistent identification and assessment procedures for learning disabled students, resulting in inequities among the 70 districts. Until the districts could resolve these inequities, the Department froze the level of State funding for learning disabled services in the community colleges.

Supplemental Language to the 1982 Budget Act authorized a study to develop eligibility criteria for learning disabled programs in the community colleges. At that time, disagreement was substantial both at the State and national levels about the definition of a learning disability and how to distinguish this population from "underachievers" or "low-ability" students. To address these issues, the Chancellor's Office created a research consortium with representatives of the Institute for Research in Learning Disabilities at the University of Kansas and the Learning Disabilities Division of the California Association of Postsecondary Educators of the Disabled. Representatives of several other agencies and advocacy groups, including learning disabilities specialists, the Departments of Finance and Rehabilitation, and community college administrators, faculty members, clinicians, and psychologists assisted in the project.

This process helped to produce standards for the eligibility process, the definition of *learning disability* quoted above, and seven assessment components for identifying adults with learning disabilities. In Fall 1987, the 103 community colleges and three

adult education centers that offer programs and services for learning disabled students implemented the resulting "Learning Disabilities Eligibility Model," entitled *California Assessment System for Adults with Learning Disabilities*. In May 1988, the State Assembly Ways and Means Subcommittee on Higher Education approved support for the continuation of the systemwide implementation of the eligibility model and called for an evaluation of its impact on the number, ethnicity, age, and gender of learning disabled students. It requested this evaluation to assure that the implementation of the model would not lead to unexplained or detrimental over- or under-identification of any community college student as being learning disabled.

In its September report, the Chancellor's Office evaluated the impact of the model on the number, age, gender, and race of individuals referred and identified as learning disabled during the 1987-88 year -- but it was unable to include comparable information on the students who actually received learning disabled services. According to the Chancellor's Office, the data collected for these students were not coded in such a manner as to determine the demographic characteristics called for in the Supplemental Language.

### **The community colleges' process for determining learning disabilities**

The community colleges have developed the following seven-component assessment process to determine whether a student has a learning disability.

#### *1 Intake screening*

The purpose of intake screening is to gather pertinent background information on students referred for learning disabled services. Based on this background data, trained examiners administer either the Academic Attribute Survey, in order to analyze how the students' personal attributes relate to their learning problems, or the Academic Skills Assess

ment Battery -- a set of subtests that assess written expression, reading, and mathematic shortcomings that are ordinarily associated with learning disabilities.

## *2. Measured achievement*

This component is designed to identify student strengths and inconsistencies in achievement, either in an instructional setting or in the employment setting. The purpose of determining measured achievement is to certify that the students have demonstrated an appropriate level of competency in an instructional or employment setting. The component is measured by comparing their performance in either of these two settings with that of a normative (average) group.

## *3. Measured appropriate adaptive behavior*

This procedure provides information about whether the students have the level of personal independence as well as social and vocational responsibility expected of individuals in their peer group. Adaptive behavior can be measured using the Screening Measure of Adaptive Functioning or one of several other standardized measures. Unless the student shows evidence of the adaptive behaviors required to meet the minimal criterion for learning disabilities, some explanation other than a learning disability is presumed to be a better explanation of the students' achievement problems.

## *4. Ability level*

Instruments used to measure students' ability level help to assess their likelihood of achieving in the community colleges. This information helps counselors design and implement appropriate instructional goals and activities for students. Again, a variety of evaluation instruments and methods are used in this component.

## *5. Processing deficit*

Students with learning disabilities may lack the ability to acquire, manipulate, integrate, store, and retrieve information in the same manner as most students. The Processing Deficit Component is completed to verify that their difficulty is due to one or more of these factors, although the presence of this factor by itself is not sufficient to indicate that a learning disability exists. There are two primary and two secondary procedures, in addition to profes-

sional certification, that may be used to determine the existence and extent of a Processing Deficit.

## *6. Aptitude-achievement discrepancy*

As mentioned earlier, the most common characteristic of students with learning disabilities is that they do not achieve at a level that one would expect. This difference from expected or predicted achievement to actual results is calculated and evaluated in the aptitude-achievement discrepancy component. This is done by comparing students' predicted achievement in a given area, such as mathematics or reading, with their actual achievement score in the same area. If this discrepancy is greater than that of 92 percent of other students with the same aptitude score, the criterion for this component is met. Specific formulas are used for calculating predicted achievement scores, discrepancy scores, and criterion scores. A variety of aptitude and achievement measures are available for evaluating this component. As is the case with all of these components, evidence of aptitude-achievement discrepancy is not by itself sufficient for verifying that a learning disability exists.

## *7. Eligibility recommendation*

This final component of the learning disabilities eligibility model relies on the judgment of the diagnosticians involved in the students' assessment. No additional assessment instruments or cutoff scores exist for making this determination. Four tasks are defined for the clinician in this component:

- 1 To collect and summarize the results of the previous six components,
- 2 To evaluate the results for their sufficiency, reliability, objectivity and validity,
- 3 To consider alternative explanations for the student's performance in addition to a learning disability; and
- 4 To conclude if an alternative explanation is most appropriate.

Not all students who complete the first six components are learning disabled, and the clinician must complete these four tasks in order to determine if a student is eligible for learning disabled services. Trained and licensed professional evaluators perform the learning disability assessments, and they are allowed to use their professional judgment to

ensure that students who do not fit into the “mold” for learning disability eligibility determination are not disadvantaged by this process.

### Conclusions and questions for further discussion

In general, the percentage representations of learning disabled community college students, as referenced in the Supplemental Language (age, gender and ethnicity) are in line with their representations in the community college student population systemwide. The percentage differences described in the community college report do not show patterns of bias, but some of the data raise four questions that deserve investigation and answers in future reports.

#### *Why are older students underrepresented among the learning disabled?*

As noted above, the community college’s data show that students over the age of 50 are underrepresented as being referred for -- and eligible for -- learning disabled services. The reasons for this underrepresentation could be many:

- Due to funding and other restraints, services for learning disabled students in community colleges are generally not as available to students who attend class in the evening as for those who attend during the day -- and students in this age category take a disproportionate number of classes in the evenings
- Further, community college officials note that many people in the “50 and over” age category take courses for social purposes and are not pursuing academic, or continuing education goals. This would lead to their not accessing learning disabled -- and other -- student services at the same rate as would students with more traditional goals
- In addition, by the time people have reached the age of 50, they may have found effective ways to compensate for learning disabilities in day-to-day life and might not see the need to apply for learning disabled services at a college

At any rate, a further investigation of this statistical underrepresentation of students over the age of 50 seems warranted for next year’s report

#### *Why do men appear to be overrepresented among the learning disabled?*

The differences in learning disability referrals for both male and female students vary from their representations in the community college student body by more than four percentage points. Male students comprise 52.5 percent of the referral group which is 4.2 percent greater than their representation in the systemwide student body, while female students are underrepresented in the referral group by this 4.2 percent. The community colleges’ report notes that this pattern of representation is also quite different from what occurs in the K-12 education sector. Officials in the Chancellor’s Office will look into this issue more closely for next year’s report.

#### *What accounts for the differences in representation by ethnic group?*

The broad questions of differential participation rates in student services among ethnic groups have concerned academic researchers for decades. Research and analysis nationwide has acknowledged that, with regard to ethnicity, students’ decisions about which campus-level services and programs to access pertain to cultural, social, personal and economic factors that are difficult to account for in an empirical study. Such decisions made by students are based upon often times arbitrary and subjective processes that, as a practical matter, cannot be measured precisely. In sum, the ethnicity data presented in the community college report is thorough, yet difficult to use in drawing conclusions.

With the exception of Asian and Filipino students, the percentages of students, by ethnicity, who are determined to be eligible for learning disabled services in the sample group rather closely mirror their percentage representations in the population of community college students at large. Black students, for example, comprise just over 7 percent of the total community college student body and make up 8.3 percent of the students in the *eligible* sample group and the percentages for Hispanic students are 15 percent of all community college

systemwide enrollment and 14.3 percent of all eligible learning disabled students

One question raised by the set of ethnicity data presented here relates to the significant underrepresentation of Asian and Filipino students in the learning disabled referred group as compared with systemwide enrollment. As Table 5 on page 8 of the community college report and Display 3 on page 8 of this report show, these two groups of students are underrepresented by at least a factor of four when their rate of referral for learning disabled services is compared with their representation in the community colleges' student systemwide population. For next year's community college report, a more thorough analysis of the various ethnicities that comprise the "Asian" category might provide better information on their behavior patterns as they relate to referral and eligibility for learning disability services in the community colleges.

Another difference involving student ethnicity is the percentage of students initially referred for learning disabled services for whom eligibility is determined. . . . While the average percentage of referred learning disabled students identified as being eligible is 70.9 percent, Asian and Filipino students are determined eligible at the lower rates of 57.7 and 52.1 percent, respectively. It is possible that language differences account for some of this underrepresentation and underreferral of Asian students. The English-speaking abilities of some of these students is limited, and this fact may discourage potential applicants from initiating the determination process. The Commission therefore suggests that the Chancellor's Office investigate the effect that such language barriers may have on the representation of Asian students in learning disabled student services programs.

All ethnic groups other than whites had lower percentages of determination of eligibility than the 71 percent average, but the rates for Asian and Filipino students are almost 5 percentage points lower than the next lowest rate presented in this display. (The percentage of learning disabled eligibility for each ethnic category is derived by first subtracting the 686 referred students who did not complete the eligibility determination process from the total referred sample and then dividing the number of students determined eligible in each category by the new "net" referred number.)

*How do the characteristics of students with learning disabilities compare to other groups of students?*

One final observation pertains to the comparisons established and used in the Chancellor's Office report. That report compares the two learning disabled student sample groups with the community colleges' total student population.

The Commission suggests that, in addition to this systemwide enrollment, the Chancellor's Office consider using other comparison groups, such as full-time students, in next year's study.

NOTE: The following material is reproduced from pages 6-8 of *Comments on the California Colleges' 1989 Study of Students with Learning Disabilities* (California Postsecondary Education Commission, 1990).

### Comparisons with other learning disability groups

In response to the Commission's recommendation that the Chancellor's Office compare its demographic information on learning disabled students with comparable groups from other service populations, the Chancellor's Office obtained demographic information on learning disabled students in California's public schools and on learning disabled clients of the State Department of Rehabilitation for inclusion in this year's report. Display 5 below presents a side-by-side comparison of these three learning disabled populations in terms of their ethnicity and the ethnicity of the larger population.

The goals of these three programs are quite different, and, therefore, comparison among the three groups should be undertaken with caution. Thus Display 5 shows that percentage representations by ethnicity for the three populations vary substantially, particularly with respect to Latino and white representation, yet nonetheless the overall patterns of receipt of services are similar. For both school children and Department of Rehabilitation clients, Asian/Pacific Islanders tend to access learning disability services at rates much lower than their proportional representation in the entire population. For example, while Asian/Pacific Islander students comprise almost 8 percent of the total K-12 student body, they comprise less than 3 percent of school students receiving learning disability services. The

**DISPLAY 5** *Ethnicity of California Community College Students, California K-12 School Students, and California Residents, Compared with Members of These Groups Being Served as Learning Disabled*

<u>Ethnic Group</u>	Total Community College Enrollment, Fall 1988		All K-12 Students, Fall 1988		Total California Population, 1988	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Native American	16,270	1.23%	35,782	0.77%	Unavailable	
Asian/Pacific Islander	119,803	9.06	368,955	7.98	2,691,300	9.50%
Black	87,775	6.64	411,493	8.91	2,126,200	7.51
Filipino	33,261	2.51	100,334	2.17	Unavailable	
Latino	210,475	15.91	1,449,846	31.39	6,849,500	24.19
White	<u>765,202</u>	<u>57.86</u>	<u>2,251,710</u>	<u>48.76</u>	<u>16,647,900</u>	<u>58.80</u>
Total	1,322,509	*	4,618,120	100.00%	28,314,900	100.00%

<u>Ethnic Group</u>	Community College Students Receiving Learning Disabled Services, Fall 1988		K-12 Learning Disabled Resource Students, Fall 1988		Department of Rehabilitation Learning Disabled Clients, 1988	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Native American	129	2.02%	1,479	0.75%	73	0.50%
Asian/Pacific Islander	130	2.04	5,637	2.87	374	2.50
Black	603	9.45	19,860	10.13	2,106	14.20
Filipino	45	0.70	1,357	0.69	77	0.50
Latino	916	14.35	66,362	33.84	3,641	24.50
White	<u>4,391</u>	<u>68.79</u>	<u>101,382</u>	<u>51.70</u>	<u>8,584</u>	<u>57.70</u>
Total	6,383	*	196,077	100.00%	14,883	100.00%

\* For the community colleges, information from the "Other" and "Missing" categories is not shown as separate columns, but is included in the "Total" rows, therefore the percentages for the community college column totals will not sum to 100. For the groupings of K-12 students, total California population, and Department of Rehabilitation clients, data for the ethnic group "Pacific Islander" has been merged with the ethnic group "Asian" and is reported under the heading "Asian/Pacific Islander" in order to be comparable with the community colleges.

Source: Adapted from Table 4 on page 14 of the report of the Chancellor's Office reproduced in Appendix B.

comparable figures for the Department of Rehabilitation are even smaller—only 2.5 percent of its clients, compared to 9.5 percent of the State's population. Similar rates of underrepresentation can be found in the K-12 numbers for Filipino students.

Staff of the Chancellor's Office and members of the advisory committee caution that the statistical underrepresentation of students identifying themselves as Asian/Pacific Islander probably is not true across all racial lines in this ethnic category. Some of the committee members suspect that recent immigrant Southeast Asian students may have a generally higher percentage of representation in col-

lege and university learning disability programs than can be shown by the data presently available. This is because neither the Demographic Research Division of the State Department of Finance, the Chancellor's Office Management Information System, nor most other such data collection systems are currently able to collect demographic data by categorical subgroups that differentiates among all of the peoples represented in the Asian/Pacific Islander category. After the 1990 United States Census, many of the State's demographic data collection systems are expected to be redesigned and programmed so that they can collect and assimilate data from the individual Asian races.

### **Additional work of the Chancellor's Office regarding the possibility of bias**

In addition to the last two years' reports on the demographics of their learning disabled students, the community colleges have done much research on the impact of their learning disability eligibility model on their students. Further, the Chancellor's Office has conducted several workshops with the colleges' learning disabilities specialists on issues related to the operation of the eligibility model. The following paragraphs describe a few of these efforts to improve the eligibility model, particularly as relates to issues of bias.

#### *November 1988 qualitative survey of programs for students evaluated for learning disabilities*

As the first of these efforts, the Chancellor's Office initiated a qualitative study concerning the day-to-day operation of the learning disability programs of four colleges in the broader context of their other programs for students with disabilities and which involved visits to the four campuses.

#### *February 1989 training on sensitivity to cultural and linguistic differences in assessment*

The Chancellor's Office has designed a series of training activities for community college learning disability specialists regarding the variety of assessment information about students that they use in eligibility and program decision making. This training focused on the interaction pattern between an examinee and examiner, in which four goals were identified as appropriate -- to (1) provide information applicable to procedural and administrative validity checks; (2) increase awareness of individual differences and avoid stereotypical expectancies, (3) identify strengths and weaknesses in the specialists' assessment techniques, and (4) improve on the specialists' self-identified areas of weakness.

#### *September 1989 report to the Chancellor's Office of a judgmental analysis of learning disabilities assessment procedures for offensive and stereotypical content*

Eligibility for community colleges learning disabilities services is based on an assessment used to determine if students demonstrate the characteristics

shared by those students considered as having learning disabilities. This investigation examined whether or not the items in the assessment instruments are offensive to or stereotypical of specific minority groups. The results indicated that the assessment procedures were generally free of offensive or stereotypical content but that the individual student must be considered in determining whether the assessment instruments are individually appropriate. The report on the project explains the method of judgmental analysis, discusses the results of the study, and presents recommendations.

### **Conclusions**

The 1988-89 data on community college students' learning disabilities referral rates, eligibility determinations, and numbers served are consistent with what was observed last year and are generally proportional to systemwide representations. In some cases, the percentages of groups among these students were numerically closer to what would be expected than was found in the 1987-88 data. The percentage representations of learning disabled community college students by age, gender, and ethnicity were in line with their representations in the community college student population systemwide.

The exceptions to this finding of numeric consistency were students identifying themselves as Asian/Pacific Islander or Filipino, and students over the age of 50. These groups initially seek out learning disability services at lower rates than other student groups. The causes of these three groups' low rates are many, but research in this area and expertise provided by members of the advisory committee suggest that these students are making conscious and informed choices not to access this particular student service at rates as high as would be proportional. The members of the advisory committee, who are experts on assessment instruments, stated that these three groups of students appear to accept referral for these services at a lower rate than the other groups of their own volition and that these decisions appear to be unrelated to the eligibility process used by the community colleges. If more detailed demographic information were available on Asian/Pacific Islander community college students, it is suspected that their rate of underrepresentation would lessen for some racial groups in this category, but to an unknown extent.

After studying the information from both this and last year's reports, and reviewing other research on this subject, the advisory committee concluded that the information does not show the existence of patterns of bias in the operation of the community colleges' eligibility model. Based on our two years of study of information on this subject, the Commission concurs that the community colleges' eligibility model shows no evidence of ethnic, gender, or age-related bias in its design or operation in any of the information put forth on this issue

The Commission suggests that the Chancellor's Office continue to collect and report demographic information on learning disabled students as called

for in the Supplemental Language to the 1988 Budget. The advisory committee for this project has agreed to meet again next fall to review and discuss the 1989-90 demographic data on these students, and this group will provide further advice on this issue prior to the final report of the Chancellor's Office in March of 1992. Commission staff will continue to follow this issue and will report on any future developments in the biennial reports on services to students with disabilities that were mandated by Assembly Bill 746 (Hayden, 1987). With the assistance and input of Chancellor's Office staff and the advisory committee, the Commission will make its final report to the Legislature in Spring 1992 as part of the 1992 report in this series





# Appendix E

## *Chancellor's Office Reports on Learning Disabilities, 1989-90 and 1990-91*

*Learning Disabilities Eligibility Outcomes: 1989-90* **109**

*Learning Disabilities Referrals, Eligibility Outcomes and Services for 1990-91* **129**

**LEARNING DISABILITIES**  
**ELIGIBILITY OUTCOMES: 1989-90**

**Prepared for:**

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## INTRODUCTION

In 1982 the Chancellor's Office of the California Community Colleges formed a consortium to improve and standardize assessment procedures that would identify students with learning disabilities. The consortium's activities included the development of the eligibility components, procedures, and criteria to be used in the colleges' programs for students with learning disabilities (LD) throughout the state.

This collaborative effort produced standards for the eligibility process, a learning disabilities definition, and seven assessment components for identifying adults with learning disabilities. This model provided an operational definition of the LD construct and attempted to reduce or eliminate the inequities, inconsistencies, and biases that characterized previous models. In the fall of 1987 the new LD eligibility model was fully implemented at 103 California community colleges and three adult education centers which offered LD programs and services

On May 18, 1988 the Ways and Means Subcommittee on Higher Education of the state legislature approved support for continuation of the system-wide implementation of the Learning Disabilities Eligibility Model. The committee also directed the California Postsecondary Education Commission (CPEC) to evaluate and report on the impact of the LD model on LD student eligibility based on data collected over a four-year period from 1987-88 through 1990-91. (See Appendix A).

This report describes the impact of the California Community Colleges' Learning Disabilities' Eligibility Model on the number, age, gender, and ethnic group of individuals referred, identified, and receiving services as learning disabled during the 1989-90 fiscal year. This report is the third of the four which were mandated. Care has been taken to keep the same format as in previous reports, to facilitate the comparison of results from one year to another.

## **METHODS**

The California Community Colleges fully implemented a system-wide learning disabilities model in 1987. The model provides eligibility components, procedures, and criteria used for identifying students with learning disabilities. This model's impact on students referred, assessed, identified, and receiving services as learning disabled during the 1989-90 school year was evaluated in terms of the students' number, ethnicity, gender, and age as described in this report.

### **Population parameters**

California has 106 community colleges. As of July 1, 1989, 103 community colleges had credentialed and certified learning disabilities specialists who provided assessment and services to students with learning disabilities. These colleges were asked to submit data on each student who went through the assessment process between July 1, 1989 and June 30, 1990. Data were requested on (a) students who completed the process and were eligible for services, (b) students who were found ineligible, and (c) students who started but did not complete the assessment process. All 103 community colleges responded.

A total of 11,269 student records was received and of these, 11,039 were entered, representing 97.96 percent of students who were assessed for learning disabilities using the LD eligibility model from July 1, 1989 through June 30, 1990. The difference was due to redundancies, the narrowed age range of at least 16 years of age, the fact that some students made the initial appointment but did not complete the process, and coding errors at the colleges.

### **Materials**

In the early summer of 1989, a letter was sent to all supervising administrators of Disabled Student Programs and Services, requesting that information on the students assessed for learning disabilities using the eligibility model be sent to the Chancellor's Office by July 15, 1989. Attached to this letter were the Ways and Means Subcommittee's alternative language, the LD Eligibility Model Data Form, and directions for completing the data collection form (see Appendix B).

The data collection form provided space for the student's identification number, sex, age, and racial or ethnic grouping. In addition, outcome information regarding each of the seven eligibility components was required: (1) Intake Screening, (2) Measured Achievement, (3) Adaptive Behavior, (4) Ability Level, (5) Processing Deficit, (6) Aptitude-Achievement, and (7) Eligibility Recommendation. The outcome of assessing each student on components (2) through (6) was coded as: Y = yes, the component was met; PC = professional certification was used to meet the component; PN = professional certification was used but the component was not met; N = no, the component was not met, and NA = the component was not administered. The Intake Screening component (1) was coded either Y = yes, the component was administered or N = no, the component was not administered. The Eligibility Determination component (7) was coded as Y = yes, the component was met, N = no, the component was not met, or NA = the component was not administered. The last column on the data form permitted recording of whether or not additional services beyond assessment were provided for the student involved in the eligibility process.

## METHODS

The California Community Colleges fully implemented a system-wide learning disabilities model in 1987. The model provides eligibility components, procedures, and criteria used for identifying students with learning disabilities. This model's impact on students referred, assessed, identified, and receiving services as learning disabled during the 1989-90 school year was evaluated in terms of the students' number, ethnicity, gender, and age as described in this report.

### Population parameters

California has 106 community colleges. As of July 1, 1989, 103 community colleges had credentialed and certified learning disabilities specialists who provided assessment and services to students with learning disabilities. These colleges were asked to submit data on each student who went through the assessment process between July 1, 1989 and June 30, 1990. Data were requested on (a) students who completed the process and were eligible for services, (b) students who were found ineligible, and (c) students who started but did not complete the assessment process. All 103 community colleges responded.

A total of 11,269 student records was received and of these, 11,039 were entered, representing 97.96 percent of students who were assessed for learning disabilities using the LD eligibility model from July 1, 1989 through June 30, 1990. The difference was due to redundancies, the narrowed age range of at least 16 years of age, the fact that some students made the initial appointment but did not complete the process, and coding errors at the colleges.

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## Procedures

The surveys were mailed in the early summer of 1989. Chancellor's Office personnel were available to assist with questions or concerns regarding the completion of the data forms. As forms were returned, a staff member assigned a number code for each college and made a duplicate copy of the completed form. The original copy was filed in a binder, and the data logged. The duplicate copy was given to the data entry personnel. Follow-up calls were made to colleges that had not responded by July 15th, as well as to colleges that returned forms that were incomplete or incorrect (such as two racial groups listed for a student or "yes" and "no" indicated for the same component). While most colleges submitted the required information by July 31, 1989, a number of colleges were tardy in their submission and one data set was not received at the Institute for Research in Learning Disabilities, University of Kansas, until March 29, 1991.

## Data entry

The following information was entered into the computer file for each student reported on the college's data form: the assigned college three-digit code, student identification number, gender, age, race, eligibility component outcome codes, and added services. If the student identification number, age level, racial, or gender code was incomplete, the college was contacted and requested to supply the missing information.

Student cases received, but not entered for analysis, were students whose ages were below 16 years, students with other primary disabilities, students who had been assessed prior to July 1, 1989, and students who were not scheduled to complete the assessment procedures until after June 30, 1990. For each college, the total number of cases received and the total number of cases entered were recorded accompanied by a statement explaining any deleted cases.

## Data verification

Measures were taken to assure that the student information collected in the survey had been accurately entered in the computer file. One staff member at the California Community College Chancellor's Office, with previous experience in data entry for research on the impact of the Learning Disabilities' Eligibility Model, performed all the data entry for forms that were submitted. Some colleges submitted data in floppy disks. These files were merged by a staff member at the Chancellor's Office and formatted to interface with computers at the University of Kansas for data analyses. In the event that either omissions or data entry errors occurred, the necessary corrections were made.

## **RESULTS**

### **Overview**

The results of this study have been organized to describe the number of students referred, identified, and receiving services in the colleges' learning disabilities' programs. Information about these students' age, gender, and ethnicity is presented

Two perspectives might be used in evaluating data: qualitative and quantitative. The qualitative perspective may involve visually examining different numerical values such as percentages and comparing the similarity of the values with one's own expectation of what those values should be. Thus, in this perspective the individual's judgment is essential to setting the standards and evaluating the data against the standards. A quantitative analysis may involve statistical calculations which evaluate the extent to which the observed percentages are similar to the percentages expected from a probability model. In the quantitative perspective the individual also makes choices such as which statistics to use and the standard against which the data are compared, but the actual test of observed data against the expected data is independent of the individual. In these results, three statistics were calculated: a) chi-square, b) Cramer's correlation coefficient, and c) effect size. In both qualitative and quantitative perspectives similar questions are addressed, but decisions are made from different perspectives and thus, differing conclusions are quite possible.

### **Descriptions of the Student Groupings**

**System-wide student enrollment.** Comparisons involved the referral sample and the fall enrollment figures for 1989. These enrollment figures included 1,407,694 students who were enrolled full-time or part-time, and attended either day time or evening, credit or non-credit classes.

**Referred students.** Referred students were those students who initiated the identification procedures used in the learning disabilities eligibility model. The 103 community college districts that participated, reported information on 11,269 students who in the 1989-90 academic year were referred for assessment. However, as explained in the Procedures section, data on 11,039 students were used in these analyses. This sample of 11,039 is 97.96% of the total students on whom information was received. Deletions included 34 students who were less than 16 years of age.

**Identified students.** Identified students included those 6,878 students who qualified on each of the seven components of the eligibility model. If a student failed to meet the criterion on any one of the seven eligibility components, s/he was not identified as learning disabled.

**Served students.** Served students included those 7,050 students who received DSPS services other than the assessment procedures used to judge LD eligibility. Confusion is likely in that more students are receiving services than the number meeting eligibility. The best explanation is that LD specialists provided some other forms of assistance to these students for which they did not receive state funding, but rather were supported by local funding. These added services might be assistance with registration, enrollment in a note-taking or study skills class, academic advisement, and follow-up or subsequent monitoring of academic progress.

### **Age, Gender, and Racial Factor Outcomes**

Numerical data on the colleges' total enrollment and students referred, identified, and served in LD programs are provided in Table 1. These data are grouped into nominal categories of age,

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### **Age, Gender, and Racial Factor Outcomes**

Numerical data on the colleges' total enrollment and students referred, identified, and served in LD programs are provided in Table 1. These data are grouped into nominal categories of age,



gender, and ethnicity as used in the Chancellor's Office. These nominal categories are labeled in the left hand or first column of Table 1. For example, the first nominal grouping for the age factor is the 16-17 year olds. The second column includes the numbers of students from the total community college enrollment included in each grouping, while the third column includes the percent value of the particular grouping based on the total enrollment of 1,407,694. For the age factor, these two columns could not be completed for 1989-90 because figures from the Chancellor's Office for previously used age groups were not available. However, data for the sex and ethnicity factors were available.

Table 1

Frequency and percents of age, gender, and ethnic characteristics

Grouping Factor	Total College		Referred		Identified as Eligible		Served	
Column No.: (1)	No. (2)	Pct.* (3)	No. (4)	Pct.* (5)	No. (6)	Pct.* (7)	No. (8)	Pct.* (9)
<b>Age</b>								
16-17	(Age groups from the Chancellor's Office did not match )		155	1.4	106	1.5	117	1.7
18			1,120	10.1	721	10.5	723	10.3
19			1,341	12.1	838	12.2	847	12.0
20-24			2,587	23.4	1,563	22.7	1,621	23.0
25-29			1,719	15.6	1,067	15.5	1,098	15.6
30-49			3,776	34.2	2,374	34.5	2,424	34.4
50-over			341	3.1	209	3.0	220	3.1
Total	1,407,694	100	11,039	100	6,878	100	7,050	100
<b>Gender</b>								
Females	790,632	56.16	6,319	57.2	3,789	55.1	3,959	56.2
Males	609,504	43.30	4,720	42.8	3,089	44.9	3,091	43.8
Unknown	7,558	0.54	--	--	--	--	--	--
Total	1,407,694	100	11,039	100	6,878	100	7,050	100
<b>Ethnicity</b>								
American Indian	16,766	1.19	271	2.5	165	2.4	185	2.6
Asian	132,880	9.44	267	2.4	135	2.0	152	2.2
Black	94,102	6.68	1,097	9.9	608	8.8	700	9.9
Filipino	36,776	2.61	106	1.0	57	0.8	61	0.9
Hispanic	237,450	16.87	1,800	16.3	1,084	15.8	1,151	16.3
White	796,586	56.59	7,210	65.3	4,686	68.1	4,627	65.6
Other	--	--	121	1.1	66	1.0	78	1.1
Unknown/Missing	93,134	6.62	167	1.5	77	1.1	96	1.4
Total	1,407,694	100	11,039	100	6,878	100	7,050	100

\* Note Pct. = percent These percent values approximate 100% due to rounding and truncation.

As a reference in this description of the table's contents, the Females (column number 1 under the Gender factor) will be used. Of the total community college enrollment, 790,632 were females (column 2), which was 56.16% (column 3) of 1,407,694. Information on the number and percent of students in each nominal grouping who were referred to the LD programs is included in columns four and five. For example, 11,039 students were referred to the program. In this data set 6,319 were females. As a percent, female students were 57.2% of all referred students.

Information on the number and percent of students who were identified as LD is included in columns six and seven. In this sample 6,878 students were identified as learning disabled. The female group included 3,789 students which was 55.1% of all students identified.

The number and percent of students in each grouping who were served in the LD programs are designated in columns eight and nine, respectively. The total number of students receiving services was 7,050. This number included 3,959 female students, 56.2% of all students identified during 1989-90 and receiving LD services. (Obviously, more than 7,050 students are receiving services in the LD programs for which the colleges are receiving supplemental funding, but those additional students were identified in prior years and are not the focus of this report.)

Statistical information has been collapsed into Table 2. The statistics have been grouped to include age, gender, and ethnic groupings and to examine these groups in terms of eligibility and additional services. For each grouping, only those students were included who were administered all relevant components of the eligibility model used to identify students with learning disabilities and needing services. Operationally, this rule required that information was available on the outcome of the Eligibility Determination Component and the question regarding whether the student was receiving additional services. Three statistics are included in the table. (a) chi-square, (b) Cramer's coefficient, and (c) effect size.

Chi-square was used as an index of statistical independence. For example, was the eligibility outcome independent of the grouping factor, such as gender grouping? This statistic is very sensitive to any deviations of the proportions, even those deviations which have limited meaning. A second important consideration is that the chi-square test is an overall test. Thus, if the observed values in any two cells depart a critical distance from the expected values, that test result will be treated as significant. Related to this consideration is a third point and that is, the cumulative effect of even small differences may yield statistically significant results. The chi-square test does not indicate which specific percentage values are comparable or different from the statistical model's expected values.

The second index, Cramer's coefficient, was used to assess the degree or magnitude of statistical association. The upper value of the coefficient is 1.00, meaning a complete dependence between the two variables. The lower limit is 0.00, meaning no association.

The third index, effect size (Cohen, 1977), addresses the question. How much dependence exists between the outcome on one variable, e.g., identification or added services, and a second variable, e.g., age, gender, or ethnicity? The values range from 00%, meaning no dependence, to 100%, meaning total accountability for the outcome.

**Age related factors** No comparisons were possible between age groups of students in the total community college population and students in the referral sample, since the age groups provided by the Chancellor's Office for 1989-90 did not match the age groups adapted for the California Postsecondary Education Commission report. While thought was given to revising the age groups for this year's CPEC report to match the data from the Chancellor's Office, this alternative was not adapted, since revision would have precluded comparisons among age groups in the three other years for which the project has been mandated.

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Table 2

Statistical Relations Among Age, Gender, and Ethnic Characteristics by Eligibility and Additional Services Outcomes

Grouping Factor	Eligibility			Additional Services		
	Chi-Square	Cramer's V	Effect Size(%)	Chi-Square	Cramer's V	Effect Size(%)
Age	51.28*	.05	6.82	34.35*	.04	5.58
Gender	52.55*	.07	6.90	9.41*	.03	2.92
Ethnicity	116.02*	.07	10.25	42.57*	.04	6.21

Note: \*Statistically significant with  $p < 0.001$

Among the identified students the percents for each age grouping closely paralleled their representation among the referred students. Similarly, among the students receiving added services the age grouping percentages again were comparable to the referral percentages. The calculated differences were less than one percent for any group.

From Table 2, the reader will note that the chi-square statistic did detect a reliable difference across the different age groups. This difference was noted in both the identified and served student groups. However, both Cramer's coefficient and the effect size were very small.

**Gender related factors** In the referral sample, males were evidenced less frequently (0.5%) than they were in the total college population. Conversely, females were over-represented by slightly more than one percent. This finding is in contrast to the previous (1988-89) academic year, when males were evidenced more frequently in the referral sample than in the total college population (by a difference of 2%), while females were under-represented by the same percentage (2%).

Among those students identified as having learning disabilities and receiving services, the percentage values for males (43.8%) increased by 0.5% over their representation in the total population, which was 43.30%. The percentage value for females identified as having learning disabilities and receiving services (56.2%) increased by 0.04% over their representation in the total population (56.16%). The chi-square test (in Table 2) detected the differences as reliable differences from the expected values. However, the degree of association and the amount to which identification or receiving additional services were dependent on the student's gender were very small. This conclusion was based on the computed values for Cramer's coefficient and the effect size, which were .07 and 6.9%, respectively, for students identified, and .03 and 2.92%, respectively, for students receiving additional services.

**Ethnic related factors** Marked differences were evidenced between the percent of the total student population belonging to each of the ethnic groups and the percent of the referred students from the same ethnic groups. For example, while Asians comprised 9.44% of the student population, Asians were only 2.4% of the referred students. One might speculate on a number of reasons for such a difference, e.g., overall achievement level, enrollment patterns, college goals, attributions of successful and unsuccessful achievement, scheduling patterns, motivation, counseling, and

advisement. These explanations and others were not addressed in the data collection efforts. Similarly, Blacks represented approximately 6.68% of the total student population and were represented more frequently in the referred sample, approximately 9.9%. The largest difference in relative magnitude was evidenced among White students, who comprised 56.59% of the enrollment but 65.3% of the referrals. As in the other ethnic groupings, one can only speculate about the differences in the proportions of the population and the referral.

In reviewing the percentages among the ethnic groups of the identified students and the students receiving additional services, the reader will note similar percentages as in the referral sample. For the identified students, the percentages were close to their values in the referral samples. Fewer students were identified as eligible than students referred, except for Whites, whose percentage increased. The largest difference was that Whites were more likely identified; the difference was 2.8% ( $68.1 - 65.3 = 2.8$ ). Nonetheless, the percentage of White students receiving additional services (65.6%) was only 0.3 percent more than the percentage of White students referred (65.3%), and almost 3% less than the percentage of White students identified as eligible (68.1%).

Interestingly, the percentages of students served were similar to the percentages in the referral sample. The differences were less than one percent for any ethnic group, just as the differences were among the age groupings. Thus, while the percentages showed variation between referred and identified groups, the percentage differences were minimal between referred students and served students.

Ethnicity data from Table 2 indicate that statistical values are similar in magnitude, but also are larger than those values associated with age and gender factors. The chi-square was significant for outcomes on both identification and added services. The respective chi-square values were 116.02 and 42.57. The correlation between the identification outcome and the ethnic group membership was .07. Added services were provided with little appreciable distinction based on ethnic membership. Cramer's coefficient, a measure of association, was calculated as .04. Likewise, the effect size was minimal (06.21%). Recall that effect size is a numerical index indicating the degree to which provision of added services could be attributed to one's ethnic membership.

Table 3 was constructed to synthesize a variety of referral, eligibility, and services information. The columns are organized for the different ethnic groups and the last column is the total for the rows. The row labeled "Referrals" (1) indicates the number of students, 11,039, who initiated the eligibility assessment procedures by completing a consent form and one or more of the eligibility components. However, not all students who started the eligibility components completed the process. Some students chose not to continue for unknown reasons. The most important component is the Eligibility Determination component because this component is the decision point at which students are identified or not identified as eligible for learning disabilities services. The number of students for whom this decision was not made was labeled "Not Administered" (2), meaning the component was not administered. The total number of students for whom this determination was not made was 1,120.

The third row (3) of Table 3 reflects the actual number of students who thus could have been eligible if they had completed all of the components. This row is called "Net referrals" and constituted 9,919 students. Row four (4) includes the student count identified as having learning disabilities. This count (6,878) would indicate the potential students who might be expected to receive services.

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Table 3

## Total Number of Students Referred, Identified as Eligible, and Receiving Learning Disabilities Services

Classification	American Indian	Asian	Black	Filipino	Hispanic	White	Other	Missing	Total
(1) Referrals	271	267	1,097	106	1,800	7,210	121	167	11,039
(2) Not Administered	-41	-32	-149	-9	-188	-652	-13	-36	-1,120
(3) Net Referrals	230	235	948	97	1,612	6,558	108	131	9,919
(4) Number Eligible	165	135	608	57	1,084	4,686	66	77	6,878
(5) Percent Eligible	71.7	57.4	64.1	58.5	67.2	71.5	61.1	58.8	69.3
(6) Eligible & Served	147	120	525	47	920	3,856	58	66	5,739
(7) Pct. Elg. & Served	89.1	88.9	86.3	82.5	84.9	82.3	87.9	85.7	83.4
(8) Total Served	185	152	700	61	1,151	4,627	78	96	7,050
(9) Pct Served	68.3	56.9	63.8	57.5	63.9	64.2	64.5	57.5	63.9

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Row five (5) provides these counts computed as percents of the "Net Referrals." That is, the percent of the net referrals of a given ethnic group who were identified as eligible for learning disabilities' services. For example, looking at the first column of the 271 American Indian students referred, 41 did not complete the identification procedures, thus 230 students completed the procedures. Of these 230 students, 165 students were judged eligible. These 165 students computed to a 71.7% eligibility rate, the highest percentage among the ethnic groupings. For the other ethnic groups, the percent eligible ranged from 57.4% for the Asians to 71.5% for the Whites. The average eligibility rate was 69.3%.

Rows six (6) and seven (7) provide information on students receiving LD services. These values were based on only those students who were eligible for services. As these values indicate, fewer students were receiving LD services than were eligible for them. The percentage values ranged from a low of 82.5% for Filipinos to a high of 89.1% for American Indian students. A consistent pattern seems apparent, since students of American Indian ethnicity also had the highest percentage for those evaluated as eligible.

Rows eight (8) and nine (9) indicate the number and percentage of referred students who may or may not have been found eligible but were receiving additional services. A visual inspection of rows four and eight indicates that for all ethnic groups more students were receiving services than were identified as eligible, except for White students. From the referred American Indian students ( $n = 271$ ), 185 (68.3%) were receiving added services beyond the eligibility assessment services. The percentages were generally in the mid-60% range, with three exceptions - Asians (56.9), Filipinos (57.5%) and Missing (57.5%). The data do not provide any clues regarding the basis of this phenomenon.



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## DISCUSSION

In this section, the results of the study are reviewed and a set of issues relevant to the data is presented. This report describes characteristics, i.e., age, gender, and race, in four student groupings of the college population: (a) the students enrolled in the fall of 1989 (except for age groups, since the groupings from the Chancellor's Office did not match the age groups adopted for the four-year project); (b) the students referred for evaluation on the LD eligibility model; (c) the students found eligible on the LD eligibility model, i.e., identified as having learning disabilities; and (d) the students who received additional services from the LD programs. Comparisons of those characteristics were made among the four student groupings. This year's report also includes comparisons of the community college LD population with the general student population in California community colleges, except for the age factor.

The 1989-90 age, gender, and ethnicity data are consistent with the data gathered in the two previous years. Therefore, the discussion and issues raised in the 1988-89 report to CPEC remain relevant.

As previously mentioned in the "Results" section, no comparisons were possible between age groups of students in the total community college population and students in the referral sample, since the age groups provided by the Chancellor's Office for 1989-90 did not match the age groups adapted for the California Postsecondary Education Commission report. Thought was given to revising the age groups for this year's CPEC report to match the data from the Chancellor's Office; however, this alternative was not adapted, since revision would have precluded comparisons among age groups in the three other years for which the project has been mandated. Correct data will be available for the 1990-91 annual report.

Among the age groups of students who were referred, identified as eligible, and served, percentages were similar. Variations were less than one percent for any group.

For the gender factor, the observed proportions differed from expected values in a statistically significant manner. Males were more likely to be eligible than were females. Males were 43.30% of the community college population, though only 42.8% of the male students were referred for LD assessment. Males were 44.9% of the students eligible and 43.8% of the students receiving services. Females comprise the majority in both the California community college population (56.16%) and the students referred (57.2%), as well as those identified as eligible (55.1%) and receiving services (56.2%). These percentages show the impact of small variations on the chi square statistic, which indicated a statistically significant difference.

On ethnic factors, significant differences were found in examining the proportions of Asians and Filipinos in the student population and their proportions in the referral sample. These ethnic groups were under-referred in proportion to their inclusion in the student population. Among the identified LD populations, proportional differences were also noted. The proportions of students eligible in each racial group were not equivalent. However, while gender and racial factors demonstrated a statistically significant relationship with the eligibility outcome, these characteristics do not notably affect the eligibility decision. Other factors were suggested as having a cumulatively greater effect. These factors may include socio-economic level, language fluency, educational history, referral process, support services, availability of services, scheduling of services, campus population characteristics, administrative support, level of aspiration, and motivation. However, one should also be cognizant that gender and race may explain the relationship to a greater degree than any other factor. Which other factors are important is presently unknown.

Considering the demographic characteristics included in Table 1, the Asian population is consistently under-represented in the referral process to the California community college LD

programs and thus under-represented in the LD programs. This difference might be explained by: (1) language differences which could result in a lack of understanding of some Asian students about student services, (2) cultural differences regarding attitudes about special education and support, and (3) few valid informal and formal assessment procedures are available for English as a Second Language students with the community college's age groups.

An examination of the proportional representation statistics for the colleges suggests that the lack of proportional representation for Asians and males may be a referral issue rather than an eligibility issue.

From the number of inquiries to the Chancellor's Office during the current year, confusion regarding the terms "additional services" still remains. "Additional services" might be interpreted to include a brief appointment with a specialist, enrollment in a special class, or a phone call or accommodations. These data, thus, should be cautiously interpreted. Reasons for students not receiving additional services as individually defined by the campus learning disabilities specialists might be: (1) full services were delayed until the next term, (2) some students refused services, (3) some students may not need the accommodations until they enroll in a particular class where their disability is manifested. An important consideration is to note that college learning disabilities specialists are aware that no categorical monies are received for students who do not meet the LD eligibility model. Non-LD students are served at cost to the local college.

Issues. Various issues were identified in the report presented to CPEC in the "Demographic Characteristics - Learning Disabilities Eligibility Model, 1988-1989." These issues remain important factors impacting the results and thus are restated in the following text as a frame of reference

The Chancellor's Office values equitable, accurate, unbiased, and consistent assessment of students. As one attempts to judge the extent to which these standards are met, the realization is apparent that the terms have different meanings to different people. Thus, to evaluate these standards, conceptual and operational definitions and evaluation criteria must be agreed upon (Hunter & Schmidt, 1976).

An assumption seems to be that a parity model is appropriate in evaluating the eligibility model. That is, the model is equitable to the extent that students are included in proportion to the extent that their group occurs in the population. The question is: What is the basis for using parity as the criterion? Are other criteria important? The data also indicated that referral rates were not representative of the population and thus the placement proportions likely would not mirror the population either.

A second assumption seems to be that students as members of a particular age, gender, or racial grouping are all alike because of their membership in that particular grouping. Such an assumption is unfounded and in fact contrary to the concept of individual differences.

As indicated in the report, the factors of age, gender, and race account for little impact on the eligibility outcome. Thus, an important next step is the determination of factors other than those assessed in the eligibility model which contribute to the eligibility outcome.

Although statistical indices are frequently accepted as a measure of fairness, they too have a narrow interpretation. Unfairness, even if it occurs for a particular student in one setting is still injustice. The case also can be made that the numbers may look "right," but yet not be sensitive to particular factors affecting fairness, accuracy, and equity.

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In interpreting these data a seemingly important consideration is that students' participation is strictly voluntary. Each student must sign a consent form indicating that s/he agrees to the assessment. However, enrollment in other college programs and classes is not contingent upon the results of the learning disabilities assessment. Understanding these basic points is essential when considering the colleges' LD programs.

An issue in these data is that "referred students" were operationally defined as those students for whom the colleges' LD specialists had completed an Intake Interview. The number of students who sought out the LD program or were recommended by someone else, e.g., counselor, class instructor, etc., but did not choose to complete the initial interview process is unknown. Thus, the sample used in this report must be considered as a conservative estimate.

An issue related to the referral process is that the referral process lacks uniformity across campuses, just as student demographics are not uniform across the campuses. The availability of services is clearly impacted by the constraints which limit the services' accessibility to particular students, e.g., services are available to only those students who are enrolled and generally for those students who attend during the day. Additional factors hypothetically impacting the referral process concern recruitment and the perception of the LD program on campus and in the community. Recruitment issues include who does the recruitment and where it is done.

In an additional effort to improve the accuracy and consistency of students' evaluations, LD specialists were provided a computer program to assist them in converting students' earned scores to standard scores and other scales. The Chancellor's Office developed the computer program so that each specialist can easily obtain accurate scores for use in the eligibility procedures and can report similar information as part of the legislature's research interests in the eligibility model.

**Summary.** In this Discussion section the results were briefly reviewed, and a variety of issues was presented concerning significant factors. Quite obviously, the issues, like the results, are not simple. Thoughtful discussions are needed in understanding these data and recommending policy changes.

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**Appendix A**

**Budget Language Directing Data Collection**



### **ALTERNATIVE LANGUAGE**

It is the intent of the Legislature that community colleges provide support and instructional services to students with learning disabilities. It is further the intent of the Legislature that community colleges continue the eligibility model implemented statewide in 1987-88 in a manner which affirms the state's commitment to educational equity and ensures accuracy and fairness in determining student eligibility for the program. In keeping with these goals, the Chancellor's Office shall do all of the following:

**Data Collection.** Prior to September 30, 1988, the Chancellor's Office shall report to the California Postsecondary Education Commission (CPEC), the Legislative Analyst's Office, and the Department of Finance on the number, ethnicity, gender, disability, and age of individuals referred, identified, and receiving services as learning disabled (LD) students during the 1987-88 fiscal year. By February 1, 1989, CPEC shall review, comment, and make recommendations to the legislative budget and policy committees based on these data.

**Evaluation.** CPEC shall evaluate and report on the impact of the LD model on LD student eligibility based on data collected between the 1987-88 through 1990-91 academic years. Prior to January 1, 1992, the Chancellor's Office shall provide data to CPEC on the number, ethnicity, gender, disability, and age of individuals who were referred, identified, and/or received services as LD students in each academic year. CPEC shall review and comment to the legislative budget and policy committees on this report by March 1, 1992.

It is the intent of the Legislature that in the development of its review, CPEC shall convene an advisory committee composed of professionals with expertise in (1) psychometric testing and evaluation with respect to learning disabled adults, (2) the impact of psychometric assessment instruments on minority group students

Item 6870-101-001  
Learning Disabilities  
Screening Model

Ways and Means Staff  
May 12, 1988

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**Appendix B**  
**Data Collection Forms**

## COLLEGE:

**Signature and title of person completing the form.**

[illegible]

COLLEGE:

**Signature and title of person completing the form.**

**DATE:**

**Eligibility Components \*\* (Please circle the appropriate code.)**

[illegible]

**LEARNING DISABILITIES**  
**REFERRALS, ELIGIBILITY OUTCOMES and**  
**SERVICES for 1990-91**

Prepared for:

**DISABLED STUDENTS' PROGRAMS AND SERVICES UNIT**  
**CALIFORNIA COMMUNITY COLLEGES**  
**1107 NINTH STREET**  
**SACRAMENTO, CALIFORNIA**

Prepared by:

**Daryl F. Mellard, PhD**  
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**University of Kansas**  
**Institute for Research in Learning Disabilities**  
**Lawrence, KS**

## **INTRODUCTION**

In 1982 the Chancellor's Office of the California community colleges formed a consortium to improve and standardize assessment procedures that would identify students with learning disabilities. The consortium's activities included the development of the eligibility components, procedures, and criteria to be used in the colleges' programs for students with learning disabilities (LD) throughout the state.

This collaborative effort produced standards for the eligibility process, a learning disabilities definition, and seven assessment components for identifying adults with learning disabilities. This model provided an operational definition of the LD construct and attempted to reduce or eliminate the inequities, inconsistencies, and biases that characterized previous models. In the fall of 1987 the new LD eligibility model was fully implemented at 103 California community colleges and three adult education centers which offered programs and services to students with LD.

On May 18, 1988 the Ways and Means Subcommittee on Higher Education of the state legislature approved support for continuation of the system-wide implementation of the Learning Disabilities' Eligibility Model. The committee also directed the California Postsecondary Education Commission (CPEC) to evaluate and report on the impact of the LD model on student eligibility based on data collected over a four-year period from 1987-88 through 1990-91. (See Appendix A.)

This report describes the impact of the California community colleges' Learning Disabilities' Eligibility Model on the number, age, gender, and ethnic group of individuals referred, identified, and receiving services as learning disabled during the 1990-91 fiscal year. This report is the fourth of the four which were mandated. The format is similar to the format of previous reports to facilitate the comparison of results from one year to another.

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## **METHODS**

The California community colleges fully implemented a system-wide learning disabilities model in 1987. The model provides eligibility components, procedures, and criteria used for identifying students with learning disabilities. This model's impact on students referred, assessed, identified, and receiving services as learning disabled during the 1990-91 school year was evaluated in terms of the students' number, ethnicity, gender, and age as described in this report.

### **Population Parameters**

California has 106 community colleges. As of July 1, 1988, 103 of the 106 community colleges had credentialed and certified learning disabilities' specialists who provided services to students with learning disabilities. These colleges were asked to submit data on each student who went through the assessment process between July 1, 1990 and June 30, 1991. Data were requested on (a) students who completed the process and were eligible for services, (b) students who were found ineligible, and (c) students who started but did not complete the assessment process. All 103 community colleges responded.

A total of 12,320 student records was received and of these, 11,950 were entered, representing 97 percent of the total. The difference was due to duplicate student records, the narrowed age range of at least 16 years of age, the fact that some students made the initial appointment but did not complete the process, and coding errors at the colleges. Deletions included 340 cases for which all seven eligibility components were coded "NA," meaning "Not administered."

### **Materials**

In the late spring of 1991, a letter was sent to all supervising administrators of Disabled Students' Programs and Services (DSPS), requesting that information on the students assessed for learning disabilities using the eligibility model be sent to the Chancellor's Office by July 15, 1991. Attached to this letter were the Ways and Means Subcommittee's alternative language, the LD Eligibility Model Data Form, and directions for completing the data collection form. (See Appendix B)

The data collection form provided space for the student's identification number, sex, age, and racial or ethnic grouping. In addition, outcome information regarding each of the seven eligibility components was required: (1) Intake Screening, (2) Measured Achievement, (3) Adaptive Behavior, (4) Ability Level, (5) Processing Deficit, (6) Aptitude-Achievement, and (7) Eligibility Recommendation. The outcome of assessing each student on components (2) through (6) was coded as: Y = yes, the component was met, PC = professional certification was used to meet the component; PN = professional certification was used but the component was not met, N = no, the component was not met, and NA = the component was not administered. The Intake Screening component (1) was coded either Y = yes, the component was administered or N = no, the component was not administered. The Eligibility Determination component (7) was coded as Y = yes, the component was met, N = no, the component was not met, or NA = the component was not administered. The last column on the data form permitted recording of whether or not additional services beyond assessment were provided for the student involved in the eligibility process. This information on services was coded Y = yes, additional services were provided, N = no additional services were provided, or NA = additional service was not provided.

## Procedures

The surveys were mailed in the spring of 1991. Chancellor's Office personnel were available to assist with questions or concerns regarding the completion of the data forms. As forms were returned, a staff member assigned a number code for each college and made a duplicate copy of the completed form. The original copy was filed in a binder, and the data logged. The duplicate copy was given to the data entry personnel. Follow-up calls were made to colleges that had not responded by July 15th, as well as to colleges that returned forms that were incomplete or incorrect (such as two racial groups listed for a student or "yes" and "no" indicated for the same component). Most colleges submitted the required information by July 31, 1991, and the data were forwarded to the Institute for Research in Learning Disabilities, University of Kansas (KU-IRLD). Two floppy disks containing colleges' data files were sent to KU-IRLD; the second arrived in the mail on September 17, 1991.

## Data Entry

The following information was entered in the computer file for each student reported on the college's data form: the assigned college three-digit code, student identification number, gender, age, race, the seven eligibility component outcome codes, and the code for added services. If the student identification number, age level, racial, or gender code was missing, or if the eligibility component outcome codes were incomplete, the college was contacted and requested to supply the missing information.

The initial codes for ethnicity included 22 classifications: 1) American Indian, 2) Asian, 3) Filipino, 4) Black, non-Hispanic, 5) Hispanic, 6) White, non-Hispanic, 7) Other non-White, 8) Unknown, 9) Cambodian, 10) Central American, 11) Chinese, 12) Japanese, 13) Korean, 14) Laotian, 15) Mexican, 16) Middle Eastern, 17) Pacific Islander, 18) South American, 19) Vietnamese, 20) Other Asian, 21) Other Hispanic, and 22) Decline to state. In the course of data analyses, some of the above groups had values too small to run proper statistical analyses, e.g., Cambodian had a representation of five, and Laotian had nine. Therefore, the 22 ethnicities were collapsed into eight groups: 1) American Indian, 2) Asian, 3) Filipino, 4) Black, 5) Hispanic, 6) White, 7) Other non-White, and 8) Decline to state/Unknown.

Student cases received, but not entered for analysis, were students whose ages were below 16 years, students with primary disabilities other than LD, students who had been assessed prior to July 1, 1990, and students who were not scheduled to complete the assessment procedures until after June 30, 1991. For each college, the total number of cases received and the total number of cases entered were recorded accompanied by a statement explaining any deleted cases.

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## **RESULTS**

### **Overview**

The results of this study have been organized to describe the number of students referred, identified, and receiving services in the colleges' learning disabilities' programs. Information about these students' age, gender, and ethnicity is presented. Additionally, statistics on the total California community college population were available with regard to students' age, gender, and ethnicity. Comparisons among the total population and the students referred, identified, and receiving LD program services with regard to age, gender, and ethnicity were made

Two perspectives might be used in evaluating data. qualitative and quantitative. The qualitative perspective may involve visually examining different numerical values such as percentages and comparing the similarity of the values with one's own expectations of what those values should be. Thus, in this perspective the individual's judgment is essential to setting the standards and evaluating the data against the standards. A quantitative analysis may involve statistical calculations which evaluate the extent to which the observed percentages are similar to the percentages expected from a probability model. In the quantitative perspective the individual also makes choices such as which statistics to use and the standard against which the data are compared, but the actual test of observed data against the expected data is independent of the individual. In these results, three statistics were calculated: a) chi-square, b) Cramer's correlation coefficient, and c) effect size. In both qualitative and quantitative perspectives similar questions are addressed, but decisions are made from different perspectives and thus, differing conclusions are quite possible

Two reports were generated from the data analyses: 1) this report entitled "Learning Disabilities Referrals, Eligibility Outcomes and Services for 1990-91," and 2) field reports using individual college data and disseminated to the respective LD specialists of participating colleges.

### **Descriptions of the Student Groupings**

Data for four student groupings were provided in the database: 1) the total student population at participating community colleges, 2) students referred for assessment in the learning disability eligibility model, 3) students who met the criteria for learning disabilities' eligibility, and 4) eligible students who were receiving DSPS services

**System-wide student enrollment.** Comparisons involved the referral sample and the fall enrollment figures for 1990. These enrollment figures included 1,400,680 students who were enrolled full-time or part-time, and attended either day time or evening, credit or non-credit classes.

**Referred students.** Referred students were those students who initiated the identification procedures used in the learning disabilities' eligibility model. The 103 community college districts that participated reported information on 12,320 students who in the 1990-91 academic year were referred for assessment. However, as explained in the Data Entry section, data on 11,950 students were used in these analyses.

**Identified students.** Identified students included those 7,715 students who qualified on each of the seven components of the eligibility model. If a student failed to meet the criterion on any one of the seven eligibility components, s/he was not identified as learning disabled.

**Served students** Served students included those 7,873 students who received DSPS services other than the assessment procedures used to judge LD eligibility. Confusion is likely in that more students were receiving services than the number meeting eligibility. The best explanation is that LD specialists provided some other forms of assistance to these students for which they did not receive state funding, but rather were supported by local funding. These added services might be assistance with registration, enrollment in a note-taking or study skills class, academic advisement, and follow-up or subsequent monitoring of academic progress.

#### **Age, Gender, and Racial Factor Outcomes**

Numerical data on the colleges' total enrollment and students referred, identified, and served in LD programs are provided in Table 1. These data are grouped into nominal categories of age, gender, and ethnicity as used in the Chancellor's Office. These nominal categories are labeled in the left hand or first column of Table 1. For example, the second nominal grouping for the age factor is the 16-17 age group (Students 15 and younger, representing less than one percent of the California community college population, were not included in the analyses.) The second column includes the numbers of students from the total community college enrollment included in each grouping (e.g., 29,827 were 16-17 years of age), while the third column includes the percent value of the particular grouping (16-17 year-olds constituted 2.13%) based on the total enrollment of 1,400,680.

As a reference in this description of the table's contents, the 16-17 age group (in column number 1 under the Age factor) will be used. As mentioned above, of the total community college enrollment, 29,827 were 16-17 years old (column 2), which was 2.13% (column 3) of 1,400,680. Information on the number and percent of students in each nominal grouping who were referred to the LD programs is included in columns four and five. An aggregate of 11,950 students were referred to the program. In this data set 149 were 16-17 years old. As a percent, 16-17 year old students were 1.2% of all referred students.

Information on the number and percent of students who were identified as LD is included in columns six and seven. In this sample 7,715 students were identified as learning disabled. The 16-17 year old group included 109 students which was 1.4% of all students identified.

The number and percent of students in each grouping who were served in the LD programs are designated in columns eight and nine, respectively. The total number of students receiving services was 7,873. This number included 95 students who were 16-17 years old, 1.2% of all students identified during 1990-91 and receiving LD services. (Obviously, more than 7,873 students are receiving services in the LD programs for which the colleges are receiving supplemental funding, but those additional students were identified in prior years and are not the focus of this report.)

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Table 1

Frequency and percents of age, gender, and ethnic characteristics

Grouping Factor	Total College		Referred		Identified as Eligible		Served	
Column No.: (1)	No. (2)	Pct.* (3)	No. (4)	Pct.* (5)	No (6)	Pct * (7)	No. (8)	Pct.* (9)
<b>Age</b>								
15-under	13,553	0.97	—	—	—	—	—	—
16-17	29,827	2.13	149	1.2	109	1.4	95	1.2
18	95,911	6.85	1,236	10.3	868	11.3	861	10.9
19	116,579	8.32	1,376	11.5	899	11.7	928	11.8
20-24	348,348	24.87	2,831	23.7	1,820	23.6	1,808	23.0
25-29	210,832	15.05	1,859	15.6	1,186	15.4	1,223	15.5
30-49	440,336	31.44	4,107	34.4	2,570	33.3	2,687	34.2
50-over	145,294	10.37	387	3.2	259	3.4	266	3.4
Missing	—	—	5	0.0	5	0.0	5	0.0
Total	1,400,680	100	11,950	100	7,715	100	7,873	100
<b>Gender</b>								
Females	784,583	56.01	6,895	57.7	4,272	55.4	4,457	56.6
Males	610,936	43.62	5,055	42.3	3,443	44.6	3,416	43.4
Unknown	5,161	0.37	—	—	—	—	—	—
Total	1,400,680	100	11,950	100	7,715	100	7,873	100
<b>Ethnicity</b>								
American Indian	21,318	1.52	283	2.4	181	2.3	192	2.4
Asian	130,117	9.29	285	2.4	170	2.2	184	2.3
Black	96,543	6.89	1,252	10.5	708	9.2	843	10.7
Filipino	39,180	2.80	87	0.7	57	0.7	64	0.8
Hispanic	227,332	16.23	1,946	16.3	1,206	15.6	1,273	16.2
White	746,943	53.33	7,744	64.8	5,187	67.2	5,101	64.8
Other	24,427	1.74	198	1.7	120	1.6	121	1.5
Unknown/Missing	114,820	8.20	155	1.3	86	1.1	95	1.2
Total	1,400,680	100	11,950	100	7,715	100	7,873	100

\* Note. Pct. = percent These percent values approximate 100% due to rounding and truncation

Statistical results are presented in Table 2. The statistics have been grouped to include age, gender, and ethnic groupings and to examine these groups in terms of eligibility and additional services. For each grouping, only those students were included who were administered all relevant components of the eligibility model used to identify students with learning disabilities and needing services. Operationally, this rule required that information was available on the outcome of the Eligibility Determination Component and whether the student was receiving additional services. Three statistics are included in the table: (a) chi-square, (b) Cramer's coefficient, and (c) effect size.

Chi-square was used as an index of statistical independence. For example, was the eligibility outcome independent of the grouping factor, such as gender grouping? This statistic is very sensitive to any deviations of the proportions, even those deviations which have limited meaning. A second important consideration is that the chi-square test is an overall test. Thus, if the observed values in any two cells depart a critical distance from the expected values, that test result will be treated as significant. Related to this consideration is a third point and that is, the cumulative effect of even small differences may yield statistically significant results. The chi-square test does not indicate which specific percentage values are comparable or different from the statistical model's expected values.

The second index, Cramer's coefficient, was used to assess the degree or magnitude of statistical association. The upper value of the coefficient is 1.00, meaning a complete dependence between the two variables. The lower limit is 0.00, meaning no association.

The third index, effect size (Cohen, 1988), addresses the question: How much dependence exists between the outcome on one variable, e.g., identification or added services, and a second variable, e.g., age, gender, or ethnicity? The values range from 0%, meaning no dependence, to 100%, meaning total accountability for the outcome.

**Age related factors** In general, the age characteristics of the identified LD sample followed the age characteristics of the college student population and the referral sample. However, students aged 50 or more were not referred to LD programs in the same proportion (3.2%) that they were enrolled in college (10.37%). They were evidenced in a lower proportion, the difference being 7.17%. While the referral rate for students aged 50 or over was lower than for other age groupings, the eligibility rate and the percent receiving services were consistent with the referral rate.

In contrast to the 50-over age group, 18- and 19-year-olds had more than three-point increases in percent of referrals (10.3% and 11.5%, respectively) as compared to their percentages in the total college population (6.85% and 8.32%, respectively). Otherwise, for the seven age groups, the percentages of students who were referred, identified as eligible, and served, were similar. Variations were less than one percent for any group, except for the 18 and the 30-49 age groups. The 18-year-olds identified as eligible constituted one percentage point (11.3%) more than the percentage of those referred (10.3%), while the age group of 30-49 identified as eligible was one percentage point (33.3%) less than the percentage for those referred (34.4%). Nonetheless, the percents of students served, for all age groups, were almost equivalent to the percents of students referred.

From Table 2, the reader will note that the chi-square statistic did detect a reliable difference across the different age groups. This difference was noted in both the identified and served student groups. However, both Cramer's coefficient and the effect size were very small. The values for Cramer's coefficient would seem to indicate that the Gender factor (.07) correlates more strongly with learning disabilities' eligibility than either the Ethnicity (.06) or Age (.05) factors and that both the Age (.04) and the Gender (.04) factors correlate more strongly with additional services than the Ethnicity (.03) factor.



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Table 2

Statistical Relations Among Age, Gender, and Ethnic Characteristics by Eligibility and Additional Services Outcomes

Grouping Factor	Eligibility			Additional Services		
	Chi-Square	Cramer's V	Effect Size(%)	Chi-Square	Cramer's V	Effect Size(%)
Age	68.42*	.05	7.57	43.57*	.04	3.50
Gender	53.49*	.07	6.69	14.67*	.04	6.04
Ethnicity	84.86*	.06	8.43	26.40**	.03	4.70

Note: \*Statistically significant with  $p < 0.001$   
 \*\*Statistically significant with  $p < 0.02$

**Gender related factors** In the referral sample, males were evidenced less frequently (1.32%) than they were in the total college population. Conversely, females were over-represented in the referral sample by slightly more than one-and-a-half percent. This finding is similar to the 1989-90 academic year, but in contrast to the 1988-89 academic year, when males were evidenced more frequently in the referral sample than in the total college population (by a difference of 2%), while females were under-represented by the same percentage (2%).

Among those students identified as having learning disabilities and receiving services, the percentage values for males (43.4%) decreased by 0.22% over their representation in the total population, which was 43.62%. The percentage value for females identified as having learning disabilities and receiving services (56.6%) increased by 0.59% over their representation in the total population (56.01%). The chi-square test (in Table 2) detected the differences as reliable differences from the expected values. However, the degree of association and the amount to which identification or receiving additional services were dependent on the student's gender were very small. This conclusion was based on the computed values for Cramer's coefficient and the effect size, which were .07 and 6.69%, respectively, for students identified, and .04 and 6.04%, respectively, for students receiving additional services.

**Ethnic related factors** Marked differences were evidenced between the percent of the total student population belonging to each of the ethnic groups and the percent of the referred students from the same ethnic groups. For example, while Asians comprised 9.29% of the student population, Asians were only 2.4% of the referred students. One might speculate on a number of reasons for such a difference, e.g., overall achievement level, enrollment patterns, college goals, attributions of successful and unsuccessful achievement, scheduling patterns, motivation, counseling, and advisement. These explanations and others were not addressed in the data collection efforts. Similarly, Blacks represented approximately 6.89% of the total student population and were represented more frequently in the referred sample, approximately 10.5%. The largest difference in relative magnitude was evidenced among White students, who comprised 53.33% of the enrollment but 64.8% of the referrals. As in the other ethnic groupings, one can only speculate about the differences in the proportions of the population and the referral.

In reviewing the percentages among the ethnic groupings of the identified students and the students receiving additional services, the reader will note similar percentages as in the referral sample. For the students identified as eligible, the percentages were close to their values in the referral samples. Fewer students were identified as eligible than students referred, except for Filipinos, whose percentage (0.7) remained equivalent, and Whites, whose percentage increased. The largest difference was that Whites were more likely identified; the difference was 2.4% ( $67.2 - 64.8 = 2.4$ ). Nonetheless, the percentage of White students receiving additional services (64.8%) was equal to the percentage of White students referred, and therefore 2.4% less than the percentage of White students identified as eligible (67.2%).

Interestingly, the percentages of students served were similar to the percentages in the referral sample. The differences were less than one percent for any ethnic group, just as the differences were among the age groupings. Thus, while the percentages showed variation between referred and identified groups, the percentage differences were minimal between referred students and served students.

Ethnicity data from Table 2 indicate that statistical values were similar in magnitude, but in some measures, less than those values associated with age and gender factors. The chi-square was significant for outcomes on both identification and added services, with the respective chi-square values at 84.86 and 26.40. The latter value, although significant at the .02 level, was not as highly significant as the chi-square values for the age or gender factors, which were significant at the .001 level. The correlation between the identification outcome and the ethnic group membership was .06. Added services were provided with little appreciable distinction based on ethnic membership. Cramer's coefficient, a measure of association, was calculated at .03, less than the values for either the age or gender factors. Likewise, the effect size was minimal (4.70%). Recall that effect size is a numerical index indicating the degree to which provision of added services could be attributed to one's ethnic membership.

Table 3 was constructed to synthesize a variety of referral, eligibility, and services information. The columns are organized for the different ethnic groups and the last column is the total for the rows. The row labeled "Referrals" (1) indicates the number of students, 11,950, who initiated the eligibility assessment procedures by completing a consent form and one or more of the eligibility components. However, not all students who started the eligibility components completed the process. Some students chose not to continue for unknown reasons. The most important component is the Eligibility Determination component because this component is the decision point at which students are identified as eligible or not eligible for learning disabilities' services. The number of students for whom this decision was not made was labeled "NA," meaning the component was "Not Administered" (2). The total number of students for whom this determination was not made was 1,072.

The third row (3) of Table 3 reflects the actual number of students who thus could have been eligible if they had completed all of the components. This row is called "Net referrals" and constituted 10,878 students. Row four (4) includes the student count identified as having learning disabilities. This count (7,715) would indicate the potential students who might be expected to receive services. Row five (5) provides these counts computed as percents of the "Net Referrals." That is, the percent of the net referrals of a given ethnic group who were identified as eligible for learning disabilities' services. For example, looking at the seventh column of the 7,744 White students referred, 610 did not complete the identification procedures, thus 7,134 students completed the procedures. Of these 7,134 students, 5,187 students were judged eligible. These 5,187 students computed to a 72.7% eligibility rate, the highest percentage among the ethnic groupings. For the other ethnic groups, the percent eligible ranged from 63.7% for the Blacks to 72.4% for the American Indians. The average eligibility rate was 70.9%.

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Table 3

## Total Number of Students Referred, Identified as Eligible, and Receiving Learning Disabilities Services

Classification	American Indian	Asian	Black	Filipino	Hispanic	White	Other	Unknown/ Missing	Total
(1) Referrals	283	285	1,252	87	1,946	7,744	198	155	11,950
(2) Not Administered	33	27	141	5	210	610	24	22	1,072
(3) Net Referrals	250	258	1,111	82	1,736	7,134	174	133	10,878
(4) Number Eligible	181	170	708	57	1,206	5,187	120	86	7,715
(5) Percent Eligible	72.4	65.9	63.7	69.5	69.5	72.7	69.0	64.7	70.9
(6) Eligible & Served	154	147	626	53	1,028	4,346	98	73	6,525
(7) Pct Elg & Served	85.1	86.5	88.4	93.0	85.2	83.8	81.7	84.9	84.6
(8) Total Served	192	184	843	64	1,273	5,101	121	95	7,873
(9) Pct Served	67.8	64.6	67.3	73.6	65.4	65.9	61.1	61.3	65.9

Rows six (6) and seven (7) provide information on students receiving LD services. These values were based on only those students who were eligible for services. As these values indicate, fewer students were receiving LD services than were eligible for them. The percentage values ranged from a low of 81.7% for Other non-White students to a high of 93% for Filipino students. In contrast, White students had the highest percentage (72.7) for those evaluated as eligible, but the proportion decreased to 83.8% for White students eligible and receiving services, almost one point less than the average percent (84.6%).

Rows eight (8) and nine (9) indicate the number and percentage of referred students who may or may not have been found eligible but were receiving additional services. A visual inspection of rows four and eight indicates that for all ethnic groups more students were receiving services than were identified as eligible, except for White students. Among the referred American Indian students (n = 283), 192 (67.8%) were receiving added services beyond the eligibility assessment services. The percentages were generally in the mid-60% range, with the exception of Filipinos (73.6%). The data do not provide any clues regarding the basis of this phenomenon.

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## -- DISCUSSION

In this section, the results of the study are reviewed and a set of issues relevant to the data is presented. This report describes characteristics, i.e., age, gender, and race, of four student groupings in the college population: (a) the students enrolled in the fall of 1990; (b) the students referred for evaluation on the LD eligibility model; (c) the students found eligible on the LD eligibility model, i.e., identified as having learning disabilities; and (d) the students who received additional services from the LD programs. Comparisons of those characteristics were made among the four student groupings. This year's report also includes comparisons of the community college LD population with the general student population in California's community colleges.

The 1990-91 age, gender, and ethnicity data are consistent with the data gathered in the three previous years. Therefore, the discussion and issues raised in the 1987-88, 1988-89, and 1989-90 reports to CPEC remain relevant.

On the age factor, statistically significant differences were noted. The lower referral rate for the 50-over age group when compared to the same age group in the college population might be explained because these older students may have a different purpose for attending college or may have developed effective compensatory skills and thus not need the support services. This population may have a limited awareness of learning disabilities or learning disabilities may have a negative stigma attached to it and therefore the students aged 50 or over do not seek these services. A greater proportion of 18- and 19-year olds were referred than were in the total college population. Perhaps 18- and 19-year olds, who are the most recent high school graduates, are more aware of, and therefore seek the services offered by community colleges for students with learning disabilities.

Among the identified students, the percents for each age grouping were comparable to their representation among the referred students. The calculated differences were less than one percent for any group, except for the 18-year-olds, for whom those identified (11.3%) were one percent more than those referred (10.3%) and the 30-49 age group, for whom those identified (33.3%) were one percent less than those referred (34.4%). Nonetheless, for all age groups, the percents of students served were almost equivalent to the percents of students referred.

For the gender factor, the observed proportions differed from expected values in a statistically significant manner. Although the percentage of males who were found to be eligible (44.6%) was more than the proportion of males in the population (43.62%), females comprised the majority in eligibility rate (55.4%) as well as the total population (56.01%), the students referred (57.7%), and the students receiving services (56.6%). The males were 42.3% of students referred for LD assessment and of these, 43.4% were receiving services. These percentages show the impact of small variations on the chi square statistic, which indicated a statistically significant difference.

Regarding the ethnicity factor, statistically significant differences were also found. The proportions of Asians and Filipinos in the student population and their proportions in the referral sample had the greatest differences. These ethnic groups were under-referred in proportion to their inclusion in the student population, while Whites and Blacks, contrariwise, were over-referred in proportion to their inclusion in the student population. Among the identified LD populations, proportional differences were also noted. The proportions of students eligible in each ethnic group were not equivalent. Nevertheless, as seen in Table 2, the *p* value for ethnicity as a factor in receiving added services was not as significant as the *p* values for either the age or gender factors. While age, gender, and racial factors demonstrated statistically significant relationships with the eligibility outcome, these characteristics do not notably affect the eligibility decision. Other factors were suggested as having a cumulatively greater effect. These factors



may include. socioeconomic level, language fluency, educational history, referral process, support services, availability of services, scheduling of services, campus population characteristics, administrative support, level of aspiration, and motivation. However, one should also be cognizant that age, gender, and race may explain the relationship to a greater degree than any other factor. Which other factors are important is presently unknown.

Considering the demographic characteristics included in Table 1, the Asian population is consistently under-represented in the referral process to the California community college LD programs and thus under-represented in the LD programs. This difference might be explained by: (1) language differences which could result in a lack of understanding of some Asian students about student services, (2) cultural differences regarding attitudes about special education and support, and (3) few valid informal and formal assessment procedures are available for English as a Second Language students with the community college's age groups.

An examination of the proportional representation statistics for the colleges suggests that the lack of proportional representation for Asians and males may be a referral issue rather than an eligibility issue.

From the number of inquiries to the Chancellor's Office during the current year, confusion regarding the terms "additional services" still remains. "Additional services" might be interpreted to include a brief appointment with a specialist, enrollment in a special class, or a phone call or accommodations. These data, thus, should be cautiously interpreted. Reasons for students not receiving additional services as individually defined by the campus learning disabilities specialists might be: (1) full services were delayed until the next term, (2) some students refused services, (3) some students may not need the accommodations until they enroll in a particular class where their disability is manifested. An important consideration is to note that college learning disabilities specialists are aware that no categorical monies are received for students who do not meet the LD eligibility model. Non-LD students are served at cost to the local college.

**Issues** Various issues were identified in the report presented to CPEC in the "Demographic Characteristics - Learning Disabilities Eligibility Model, 1987-88." These issues remain important factors impacting the results and thus are restated in the following text as a frame of reference

The Chancellor's Office values equitable, accurate, unbiased, and consistent assessment of students. As one attempts to judge the extent to which these standards are met, the realization is apparent that the terms have different meanings to different people. Thus, to evaluate these standards, conceptual and operational definitions and evaluation criteria must be agreed upon (Hunter & Schmidt, 1976).

An assumption seems to be that a parity model is appropriate in evaluating the eligibility model. That is, the model is equitable to the extent that students are included in proportion to the extent that their group occurs in the population. The question is: What is the basis for using parity as the criterion? Are other criteria important? The data also indicated that referral rates were not representative of the population and thus the placement proportions likely would not mirror the population either

A second assumption seems to be that students as members of a particular age, gender, or racial grouping are all alike because of their membership in that particular grouping. Such an assumption is unfounded and in fact contrary to the concept of individual differences

may include: socioeconomic level, language fluency, educational history, referral process, support services, availability of services, scheduling of services, campus population characteristics, administrative support, level of aspiration, and motivation. However, one should also be cognizant that age, gender, and race may explain the relationship to a greater degree than any other factor. Which other factors are important is presently unknown.

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A second assumption seems to be that students as members of a particular age, gender, or racial grouping are all alike because of their membership in that particular grouping. Such an assumption is unfounded and in fact contrary to the concept of individual differences

As indicated in the report, the factors of age, gender, and race account for little impact on the eligibility outcome. Thus, an important next step is the determination of factors other than those assessed in the eligibility model which contribute to the eligibility outcome.

Although statistical indices are frequently accepted as a measure of fairness, they too have a narrow interpretation. Unfairness, even if it occurs for a particular student in one setting is still injustice. The case also can be made that the numbers may look "right," but yet not be sensitive to particular factors affecting fairness, accuracy, and equity.

In interpreting these data a seemingly important consideration is that students' participation is strictly voluntary. Each student must sign a consent form indicating that s/he agrees to the assessment. However, enrollment in other college programs and classes is not contingent upon the results of the learning disabilities assessment. Understanding these basic points is essential when considering the colleges' LD programs.

An issue in these data is that "referred students" were operationally defined as those students for whom the colleges' LD specialists had completed an Intake Interview. The number of students who sought out the LD program or were recommended by someone else, e.g., counselor, class instructor, etc., but did not choose to complete the initial interview process is unknown. Thus, the sample used in this report must be considered as a conservative estimate.

An issue related to the referral process is that the referral process lacks uniformity across campuses, just as student demographics are not uniform across the campuses. The availability of services is clearly impacted by the constraints which limit the services' accessibility to particular students, e.g., services are available to only those students who are enrolled and generally for those students who attend during the day. Additional factors hypothetically impacting the referral process concern recruitment and the perception of the LD program on campus and in the community. Recruitment issues include who does the recruitment and where it is done.

In an additional effort to improve the accuracy and consistency of students' evaluations, LD specialists were provided a computer program to assist them in converting students' earned scores to standard scores and other scales. The Chancellor's Office developed the computer program so that each specialist can easily obtain accurate scores for use in the eligibility procedures and can report similar information as part of the legislature's research interests in the eligibility model.

**Summary** In this Discussion section the results were briefly reviewed, and a variety of issues was presented concerning significant factors. Quite obviously, the issues, like the results, are not simple. Thoughtful discussions are needed in understanding these data and recommending policy changes.

## REFERENCES

- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. New Jersey: Lawrence Erlbaum Associates.
- Hays, W. L. (1973). Statistics for the social sciences. New York: Holt, Rinehart & Winston.
- Hunter, J. E. & Schmidt, F. L. (1976). Critical analysis of the statistical and ethical implications of various definitions of test bias. Psychological Bulletin, 83, 1053 - 1071.

**~~Appendix A~~**  
**Budget Language Directing Data Collection**

**Appendix A**

**Budget Language Directing Data Collection**

Item 6870-101-001  
Learning Disabilities  
Screening Model

Ways and Means Staff  
May 12, 1988

### ALTERNATIVE LANGUAGE

It is the intent of the Legislature that community colleges provide support and instructional services to students with learning disabilities. It is further the intent of the Legislature that community colleges continue the eligibility model implemented statewide in 1987-88 in a manner which affirms the state's commitment to educational equity and ensures accuracy and fairness in determining student eligibility for the program. In keeping with these goals, the Chancellor's Office shall do all of the following:

**Data Collection.** Prior to September 30, 1988, the Chancellor's Office shall report to the California Postsecondary Education Commission (CPEC), the Legislative Analyst's Office, and the Department of Finance on the number, ethnicity, gender, disability, and age of individuals referred, identified, and receiving services as learning disabled (LD) students during the 1987-88 fiscal year. By February 1, 1989, CPEC shall review, comment, and make recommendations to the legislative budget and policy committees based on these data.

**Evaluation.** CPEC shall evaluate and report on the impact of the LD model on LD student eligibility based on data collected between the 1987-88 through 1990-91 academic years. Prior to January 1, 1992, the Chancellor's Office shall provide data to CPEC on the number, ethnicity, gender, disability, and age of individuals who were referred, identified, and/or received services as LD students in each academic year. CPEC shall review and comment to the legislative budget and policy committees on this report by March 1, 1992.

It is the intent of the Legislature that in the development of its review, CPEC shall convene an advisory committee composed of professionals with expertise in (1) psychometric testing and evaluation with respect to learning disabled adults, (2) the impact of psychometric assessment instruments on minority group students.

**Appendix B**  
**Data Collection Form**

**Appendix B**  
**Data Collection Form**



COLLEGE:

DATE:

**Signature and title of person completing the form.**

## Eligibility Components \*\* (Please circle the appropriate code.)

[illegible]

# Appendix F *Chancellor's Office Four-Year Report*

## **LEARNING DISABILITIES REFERRALS, ELIGIBILITY OUTCOMES, AND SERVICES 1987-1991: A FOUR YEAR SUMMARY**



**Prepared for:**

**Disabled Students Programs and Services Unit  
California Community Colleges  
1107 Ninth Street  
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**Prepared by:**

**Daryl F. Mellard  
Mark Byrne  
with  
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Institute for Research in Learning Disabilities  
University of Kansas  
Lawrence, Kansas**

**December 20, 1991**

## Introduction

In May of 1987, the Chancellor's Office of the California Community Colleges was directed by the Ways and Means Committee Staff of the Legislature to report on the referral, eligibility, and services of students provided as part of the colleges' learning disabilities (LD) programs. Annual reports have been submitted to the California Post-Secondary Education Commission (CPEC) according to this directive. This report is a four year summary of those data. The number of students, their ages, ethnicity, and gender is described in this report. More specifically, the report provides comparisons of students who were referred for possible learning disabilities, were considered for eligibility, and served through DSP&S. This summary has condensed the findings from the annual reports. The reader should refer to those annual reports for more detailed information.

As a background to understanding this four year summary, a brief review is provided. In 1982 the Chancellor's Office recognized that the latitude provided to individual colleges for deciding which students were eligible for LD services was resulting in inconsistent decisions for individual students. Students judged eligible for services in one college were not necessarily eligible in another college. Over the next five years a model was developed for all of the colleges to use in making those eligibility decisions. Among the goals in developing the eligibility model was to ensure that students were more likely to be treated in a consistent, equitable manner regardless of their age, gender, or ethnic grouping. The new eligibility model was implemented in the states' colleges in August, 1987.

This report describes the outcomes of using this eligibility model over the last four years. In addition, several key issues will be discussed following the presentation of the data and specific activities planned or completed to help ensure an equitable treatment for students.

An important reminder to interpreting these data is that a student became an interest to the study only after a referral was initiated and a student voluntarily initiates that referral by contacting the college's LD specialist. Referrals are not controlled by the staff in the colleges' LD services. This point is significant in that the outcomes of the eligibility process and the provision of additional services depends on a student first initiating a referral. If the referral rates or characteristics of the referred students change, the eligibility outcomes and additional services would likely change as well. Thus, "referred students" were operationally defined as those students for whom the colleges' LD specialists had completed an Intake Interview in the Intake Screening Component. The Intake Interview was chosen as an indicator of referral because completing the Intake is the initial activity of the eligibility process. The number of students who sought out the LD program or were recommended by someone else, e.g., counselor, class instructor, etc., but did not choose to complete the initial interview process is unknown. Thus, the sample used in this report must be considered as a conservative estimate.

## Population

California has 106 community colleges. As of July 1, 1987, 103 of the 106 community colleges and 3 adult education centers had credentialed and certified learning disabilities specialists who provided assessment and services to students with learning disabilities. These colleges and centers submitted data on each student who completed the process of assessment during the period July 1, 1987 and June 30, 1988. For the initial year of this study, 8283 student records were entered.

The following year, 1988-1989, California added a new college but the pool for this study was still 103 community colleges and 3 adult education centers who provided 9594 complete records of students assessed for learning disabilities using the LD eligibility model. The third year of the study, 1989-1990, data was requested from the 103 colleges resulting in 11,039 records of

students assessed for learning disabilities using the LD eligibility model from July 1, 1989 through June 30, 1990. The last year of the study, 1990-1991, 11,950 records were entered. Each year at least 97 percent of the records received were entered for analyses. Records were excluded because students were under 16 years of age, all seven eligibility components for a student were coded "NA," meaning "Not administered," students had other primary disabilities, or a student's data was incomplete or incorrect.

## Materials

Towards the end of each spring term, data collection forms were sent to the California Community Colleges that provided LD services. The accompanying letter instructed the LD Specialists to provide information about students who initiated the LD eligibility assessment. A sample of the data collection form is included below.

### LD Eligibility Model Data Collection Form

COLLEGE

DATE

Signature and title of person completing the form:

Age	Stu ID	Sex	Yrs	Race	Eligibility Components (Please circle the appropriate code.)			
Intake Survey	Measured Achieve	Adaptive Behavior	Ability Level	Processing Deficit	Aptitude - Achieve	Recommend Eligibility	Rec'd Services	
Y	Y PC N NA	Y PC N NA	Y PC N NA	Y PC N NA	Y PC N NA	Y N NA	Y N	

The first four columns provided space for the student's identification number, sex, age, and ethnic grouping. Outcome information on each of the eligibility components – (1) Intake Screening, (2) Measured Achievement, (3) Adaptive Behavior, (4) Ability Level, (5) Processing Deficit, (6) Aptitude Achievement, and (7) Eligibility Recommendation – was entered. The seven eligibility components were coded as one of the five following categories.

1. "N," i.e., No, meaning the student did not meet the criterion for the component;
2. "NA," i.e., Not administered, meaning the student was not administered the component. Perhaps, the student did not show up or had been eliminated on a previous component;
3. "PC," i.e., Professional certification, meaning the student was assessed using professional certification procedures for the component and met the criterion;
4. "PN," i.e., Professional certification not met, meaning the student was assessed using professional certification procedures for the component and did not meet the criterion;
5. "Y," i.e., Yes, meaning the students did meet either the primary or secondary procedures for the particular component.

The last column, Added Services, was clarified in 1988-89 to indicate whether or not additional services beyond eligibility assessment were provided for the student.

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### LD Eligibility Model Data Collection Form

CONFIRMS

DATE:

Signature and title of person completing the form:

Age	Stu ID	Sex	Yrs	Race	Eligibility Components (Please circle the appropriate code.)			
Intake Survey	Measured Achieve	Adaptive Behavior	Ability Level	Processing Deficit	Aptitude - Achieve	Recommend Eligibility	Rec'd Services	
Y	Y PC N NA	Y PC N NA	Y PC N NA	Y PC N NA	Y PC N NA	Y N NA	Y N	

The first four columns provided space for the student's identification number, sex, age, and ethnic grouping. Outcome information on each of the eligibility components – (1) Intake Screening, (2) Measured Achievement, (3) Adaptive Behavior, (4) Ability Level, (5) Processing Deficit, (6) Aptitude Achievement, and (7) Eligibility Recommendation – was entered. The seven eligibility components were coded as one of the five following categories.

1. "N," i.e., No, meaning the student did not meet the criterion for the component;
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5. "Y," i.e., Yes, meaning the students did meet either the primary or secondary procedures for the particular component.

The last column, Added Services, was clarified in 1988-89 to indicate whether or not additional services beyond eligibility assessment were provided for the student.

## Procedures

Participating colleges sent responses to the Chancellor's Office in two modes: either completed forms or on computer disks. Data from forms were entered in a computer database by DSP&S staff. The following information for each student was entered: the assigned college three-digit code, the student's identification number, gender, age, race, eligibility component outcome codes, and added services code.

Follow-up telephone calls were made to colleges that had not responded by July 15th of each year, as well as to colleges that returned forms which were incomplete or incorrect (such as duplicate student identification numbers or both "yes" and "no" indicated for the same component). Most colleges submitted the required information by August of each year and the databases were forwarded to KU-IRLD by the fall of each year, except for 1989-90, when data from one college were not received until March 29, 1991.

The Statistical Package for the Social Sciences (SPSS) (1988) software was employed to analyze data, except for 1988-89, when Systat (1987) software was used. Initially, software programs were run to seek data entry errors. The database was corrected where errors were found. Frequencies and cross-tabulations were run to compare eligibility outcome results in the four years during which the study was mandated.

## Results

The results of the study are presented as a summary table of the students' characteristics and of the computed statistics. The students characteristics are presented in a series of three tables (Table 1, 2, and 3) to permit each reader an opportunity to review the data and develop her/his own inferences regarding the interaction between age, gender, and ethnic membership on referrals, eligibility outcomes, and added services. The total college population of all community college students is provided each year as a comparison group (except for the age breakdown for 1989-90).

Data are presented in two categories for each of the four academic years. One category consists of four headings: community college population, referrals, eligibility, and service. The other category consists of the headings age (7 levels), gender (2 levels), and ethnicity (8 levels).

**Total student population at participating community colleges.** Fall enrollment figures are presented on a yearly basis consisting of students who were enrolled full-time or part-time and attended either day or evening, credit or non-credit classes.

**Referred students.** Referred students were those students who initiated the LD eligibility process by completing the Intake Interview. Each year 103 community college districts reported information on students who initiated the referral.

**Eligible students.** Students who were identified as eligible were those who qualified on each of the seven components of the learning disabilities model. Failure to meet the criterion on even one of the seven components meant that that student was not identified as learning disabled for the purposes of direct excess cost reimbursement.

**Served students.** Served students are those receiving DSP&S services beyond the assessment procedure for judging LD eligibility. The heading 'served students' does not appear in the year 1987-1988 because respondents considered eligibility assessment as a service and did not distinguish other services beyond assessment. Thus, the data that year were judged inaccurate.

Table 1

## Age of Referred, Eligible, and Served Students

Grouping Factor	Total College		Referred		Identified as Eligible		Served	
Column No.: (1)	No. (2)	Pct.* (3)	No. (4)	Pct.* (5)	No. (6)	Pct.* (7)	No. (8)	Pct.* (9)
<b>1987-1988</b>								
16-17	31,610	2.50	184	2.2	119	2.24	-	-
18	98,624	7.80	816	9.9	520	9.79	-	-
19	103,682	8.20	941	11.4	611	11.51	-	-
20-24	308,515	24.40	2,123	25.7	1,363	25.67	-	-
25-29	195,983	15.50	1,286	15.6	821	15.46	-	-
30-49	384,380	30.40	2,622	31.7	1,676	31.56	-	-
50-over	141,614	11.20	295	3.6	200	3.77	-	-
Missing	9,024							
Total	1,273,432	100	8,267	100	5,310	100		
<b>1988-1989</b>								
16-17	28,515	2.16	231	2.40	164	2.66	168	2.63
18	105,668	7.99	988	10.30	680	11.03	691	10.83
19	111,624	8.44	1,141	11.90	764	12.40	788	12.35
20-24	316,338	23.92	2,326	24.20	1,433	23.25	1,489	23.33
25-29	202,838	15.34	1,499	15.60	978	15.87	979	15.34
30-49	406,791	30.76	3,084	32.10	1,943	31.53	2,043	32.01
50-over	150,735	11.40	325	3.40	201	3.26	225	3.52
Total	1,322,509	100	9,594	100	6,163	100	6,383	100
<b>1989-1990</b>								
16-17	(Age groups		155	1.4	106	1.5	117	1.7
18	from the		1,120	10.1	721	10.5	723	10.3
19	Chancellor's Office		1,341	12.1	838	12.2	847	12.0
20-24	did not match )		2,587	23.4	1,563	22.7	1,621	23.0
25-29			1,719	15.6	1,067	15.5	1,098	15.6
30-49			3,776	34.2	2,374	34.5	2,424	34.4
50-over			341	3.1	209	3.0	220	3.1
Total	1,407,694		11,039	100	6,878	100	7,050	100
<b>1990-1991</b>								
15-under	13,553	0.97	-	-	-	-	-	-
16-17	29,827	2.13	149	1.2	109	1.4	95	1.2
18	95,911	6.85	1,236	10.3	868	11.3	861	10.9
19	116,579	8.32	1,376	11.5	899	11.7	928	11.8
20-24	348,348	24.87	2,831	23.7	1,820	23.6	1,808	23.0
25-29	210,832	15.05	1,859	15.6	1,186	15.4	1,223	15.5
30-49	440,336	31.44	4,107	34.4	2,570	33.3	2,687	34.2
50-over	145,294	10.37	387	3.2	259	3.4	266	3.4
Missing	-	-	5	0.0	5	0.0	5	0.0
Total	1,400,680	100	11,950	100	7,715	100	7,873	100

\* Note: Pct. = percent. These percent values approximate 100% due to rounding and truncation.

Table 1

## Age of Referred, Eligible, and Served Students

Grouping Factor	Total College		Referred		Identified as Eligible		Served	
	No.	Pct.*	No.	Pct.*	No.	Pct.*	No.	Pct.*
Column No.: (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>1987-1988</b>								
16-17	31,610	2.50	184	2.2	119	2.24	-	-
18	98,624	7.80	816	9.9	520	9.79	-	-
19	103,682	8.20	941	11.4	611	11.51	-	-
20-24	308,515	24.40	2,123	25.7	1,363	25.67	-	-
25-29	195,983	15.50	1,286	15.6	821	15.46	-	-
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50-over	141,614	11.20	295	3.6	200	3.77	-	-
Missing	9,024							
Total	1,273,432	100	8,267	100	5,310	100		
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16-17	28,515	2.16	231	2.40	164	2.66	168	2.63
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19	111,624	8.44	1,141	11.90	764	12.40	788	12.35
20-24	316,338	23.92	2,326	24.20	1,433	23.25	1,489	23.33
25-29	202,838	15.34	1,499	15.60	978	15.87	979	15.34
30-49	406,791	30.76	3,084	32.10	1,943	31.53	2,043	32.01
50-over	150,735	11.40	325	3.40	201	3.26	225	3.52
Total	1,322,509	100	9,594	100	6,163	100	6,383	100
<b>1989-1990</b>								
16-17	(Age groups from the Chancellor's Office did not match)		155	1.4	106	1.5	117	1.7
18			1,120	10.1	721	10.5	723	10.3
19			1,341	12.1	838	12.2	847	12.0
20-24			2,587	23.4	1,563	22.7	1,621	23.0
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50-over			341	3.1	209	3.0	220	3.1
Total	1,407,694		11,039	100	6,878	100	7,050	100
<b>1990-1991</b>								
15-under	13,553	0.97	-	-	-	-	-	-
16-17	29,827	2.13	149	1.2	109	1.4	95	1.2
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30-49	440,336	31.44	4,107	34.4	2,570	33.3	2,687	34.2
50-over	145,294	10.37	387	3.2	259	3.4	266	3.4
Missing	-	-	5	0.0	5	0.0	5	0.0
Total	1,400,680	100	11,950	100	7,715	100	7,873	100

\* Note: Pct. = percent. These percent values approximate 100% due to rounding and truncation.



**Table 2**  
**Gender of Referred, Eligible, and Served Students**

Grouping Factor	Total College		Referred		Identified as Eligible		Served	
	No.	Pct.*	No.	Pct.*	No.	Pct.*	No.	Pct.*
Column No.: (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>1987-1988</b>								
Females	705,225	56.7	4,346	52.5	2,685	50.55	-	-
Males	538,558	43.3	3,937	47.5	2,627	49.45	-	-
Unknown	20,626	-	-	-	-	-	-	-
<b>Total</b>	<b>1,264,409</b>	<b>100</b>	<b>8,283</b>	<b>100</b>	<b>5,312</b>	<b>100</b>		
<b>1988-1989</b>								
Females	744,633	56.30	5,228	54.50	3,248	52.70	3,361	52.66
Males	573,066	43.33	4,366	45.50	2,915	47.30	3,022	47.34
Unknown	4,810	0.36	-	-	-	-	-	-
<b>Total</b>	<b>1,322,509</b>	<b>100</b>	<b>9,594</b>	<b>100</b>	<b>6,163</b>	<b>100</b>	<b>6,383</b>	<b>100</b>
<b>1989-1990</b>								
Females	790,632	56.16	6,319	57.2	3,789	55.1	3,959	56.2
Males	609,504	43.30	4,720	42.8	3,089	44.9	3,091	43.8
Unknown	7,558	0.54	-	-	-	-	-	-
<b>Total</b>	<b>1,407,694</b>	<b>100</b>	<b>11,039</b>	<b>100</b>	<b>6,878</b>	<b>100</b>	<b>7,050</b>	<b>100</b>
<b>1990-1991</b>								
Females	784,583	56.01	6,895	57.7	4,272	55.4	4,457	56.6
Males	610,936	43.62	5,055	42.3	3,443	44.6	3,416	43.4
Unknown	5,161	0.37	-	-	-	-	-	-
<b>Total</b>	<b>1,400,680</b>	<b>100</b>	<b>11,950</b>	<b>100</b>	<b>7,715</b>	<b>100</b>	<b>7,873</b>	<b>100</b>

Table 3

## Ethnicity of Referred, Eligible, and Served Students

Grouping Factor	Total College		Referred		Identified as Eligible		Served	
Column No.: (1)	No. (2)	Pct.* (3)	No. (4)	Pct.* (5)	No. (6)	Pct.* (7)	No. (8)	Pct.* (9)
<b>1987-1988</b>								
American Indian	15,173	1.20	109	1.30	65	1.29	-	-
Asian	122,648	9.70	175	2.10	90	1.79	-	-
Black	89,773	7.10	751	9.10	417	8.28	-	-
Filipino	31,610	2.50	52	0.60	25	0.50	-	-
Hispanic	189,661	15.00	1,205	14.50	718	14.25	-	-
White	788,991	62.40	5,502	66.40	3,723	73.90	-	-
Other	26,553	2.10	105	1.30	-	-	-	-
Missing	63,610	-	384	4.60	-	-	-	-
<b>Total</b>	<b>1,328,019</b>	<b>100</b>	<b>8,283</b>	<b>100</b>	<b>5,038</b>	<b>100</b>		
<b>1988-1989</b>								
American Indian	16,270	1.23	187	1.90	117	1.90	129	2.02
Asian	119,803	9.06	198	2.10	115	1.87	130	2.04
Black	87,775	6.64	899	9.40	512	8.31	603	9.45
Filipino	33,261	2.51	85	0.90	42	0.68	45	0.70
Hispanic	210,475	15.91	1,404	14.60	840	13.63	916	14.35
White	765,202	57.86	6,519	67.90	4,380	71.07	4,391	68.79
Other	27,302	2.06	90	0.90	46	0.75	57	0.89
Missing	62,421	4.72	212	2.20	111	1.80	112	1.75
<b>Total</b>	<b>1,322,509</b>	<b>100</b>	<b>9,594</b>	<b>100</b>	<b>6,163</b>	<b>100</b>	<b>6,383</b>	<b>100</b>
<b>1989-1990</b>								
American Indian	16,766	1.19	271	2.5	165	2.4	185	2.6
Asian	132,880	9.44	267	2.4	135	2.0	152	2.2
Black	94,102	6.68	1,097	9.9	608	8.8	700	9.9
Filipino	36,776	2.61	106	1.0	57	0.8	61	0.9
Hispanic	237,450	16.87	1,800	16.3	1,084	15.8	1,151	16.3
White	796,586	56.59	7,210	65.3	4,686	68.1	4,627	65.6
Other	-	-	121	1.1	66	1.0	78	1.1
Unknown/Missing	93,134	6.62	167	1.5	77	1.1	96	1.4
<b>Total</b>	<b>1,407,694</b>	<b>100</b>	<b>11,039</b>	<b>100</b>	<b>6,878</b>	<b>100</b>	<b>7,050</b>	<b>100</b>
<b>1990-1991</b>								
American Indian	21,318	1.52	283	2.4	181	2.3	192	2.4
Asian	130,117	9.29	285	2.4	170	2.2	184	2.3
Black	96,543	6.89	1,252	10.5	708	9.2	843	10.7
Filipino	39,180	2.80	87	0.7	57	0.7	64	0.8
Hispanic	227,332	16.23	1,946	16.3	1,206	15.6	1,273	16.2
White	746,943	53.33	7,744	64.8	5,187	67.2	5,101	64.8
Other	24,427	1.74	198	1.7	120	1.6	121	1.5
Unknown/Missing	114,820	8.20	155	1.3	86	1.1	95	1.2
<b>Total</b>	<b>1,400,680</b>	<b>100</b>	<b>11,950</b>	<b>100</b>	<b>7,715</b>	<b>100</b>	<b>7,873</b>	<b>100</b>

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Missing	63,610	-	384	4.60	-	-	-	-
Total	1,328,019	100	8,283	100	5038	100		
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Missing	62,421	4.72	212	2.20	111	1.80	112	1.75
Total	1,322,509	100	9,594	100	6,163	100	6,383	100
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Total	1,400,680	100	11,950	100	7,715	100	7,873	100

For each of the last three years the number of students served is larger than the number of students reported as eligible. The reason for the discrepancy is that LD specialists provided some other forms of assistance to students for which they did not receive state funding. Funding came through local sources. Examples of added services are: assistance with registration, enrollment in a note-taking or study skills class, academic advisement, and follow-up or subsequent monitoring of academic progress.

**Age.** Seven age headings were used for each year (1990-1991 includes a heading labeled 'missing,' and one for '15-under.' 'Under 15' only includes data in the column for total college population). These age levels were established by the Chancellor's Office: 16-17, 18, 19, 20-24, 25-29, 30-49, and 50-over.

**Gender.** Gender data is presented under the headings 'male' and 'female.'

**Ethnicity.** Six groups defined ethnicity levels with two other categories, one headed 'other' and one 'missing.' The six ethnic groups were Native American/Alaskan, Asian/Pacific Islander, Black, Filipino, Hispanic, and White. These categories were formed from an original listing of 20 ethnic groups. Student data was collapsed under these headings in cases where the group was not large enough to allow a statistical analyses.

Statistics provide a quantitative analysis of data. One of the desirable qualities of statistics is that they are objective. That is, statistics provide an impartial evaluation of data. A problem though is that different statistics have different interpretations. For the purposes of these data three different statistics were used: a) chi-square, b) Cramer's correlation coefficient, and c) effect size. Each statistic permits a unique interpretation of the data. Chi-square compares the observed data to a probability model and notes how different the observed and expected values are. A difference which is considered to be significant is one which is unlikely due to chance and instead can be reasonably explained by the researcher. If, for example, white students form a disproportionately large number of the total eligible students, or Filipinos are represented by a disproportionately low number, the chi-square statistic will yield a value considered significant. A significant chi-square for ethnicity means that one or more of the groups in the analysis is disproportionately represented. While chi-square is widely used, a problem with chi-square is that very small differences can be identified as statistically significant even though they have little meaningful value.

The other two statistics assess the degree of relationship between the data and students' characteristics, their age, gender, and ethnic membership. The second statistic, Cramer's coefficient, is an index of the strength of association between two variables. The value of Cramer's coefficient always falls between 1.00 meaning the two variables are completely dependent upon or related to each other, and a value of .00 meaning no association or mutual influence exists between the two variables. In general, the more student records used in the calculations, the more accurate is the correlational value.

The third statistic, effect size, estimates the extent to which an outcome on one variable, for example eligibility, is related to another variable of interest, in this case age, gender, or ethnicity. The values range from 00% to 100%. A near 00%, means the outcome on eligibility is not influenced by age, gender, or ethnicity while a value of 100% means total accountability for the outcome. A useful rule of thumb is that 20% represents a small influence, 50% a medium influence, and 80% a large influence.

## Outcomes

In Table 4 two chi-square test results are provided for each of the three categories of age, gender and ethnicity. One chi-square value is given under the heading 'eligibility' and the other is given under the heading 'additional services.' Similar to the explanation given above, a significant chi-square for 'additional services' means that one or more of the groups in the analysis is disproportionately represented. The chi-square statistic needs to be treated with caution since a significant result can be arrived at through the cumulative effect of small differences across the groups in the analyses.

As shown in Table 4, the correlations between age, gender, and ethnicity, and either eligibility or services as indicated by Cramer's coefficient, tended to be so small for each of the four years that they will be treated as negligible. The same holds for the effect size. The largest calculated effect size is 10.25%.

**Age.** In general, the number of students from each age group referred tends to represent a consistent proportion of their overall prevalence in the total college population. That means that most age groups are being referred in similar proportions to their numbers in the total college population. This figure approximates 10 out of every 1000 students irrespective of age.

However, two exceptions are observed. These exceptions are students who were grouped at the upper (older) and lower (younger) ends of the scale. The 50-over group under-refer for the three years for which data is available. An under-referral trend appears to start with the 30-49 age group. On the other hand, 18- and 19-year old age groups, that is, those groups which include the most high school graduates, are over-referred in 1988-1989 and 1989-1990. Note, such comparisons are not possible for 1990-1991 because the age groups provided by the Chancellor's Office did not match the age groups previously chosen for the CPEC report.

Among the eligible students the percents for each age group closely parallels the percentages of referred students. Similarly, among the students receiving added services the group percentages again were comparable to the referral percentages. This comparability means that once students in a particular age group initiated a referral, they maintained the same proportional representation through the outcomes of eligibility and added services. The calculated differences were less than one percent for any group.

The chi-square statistic did detect a reliable difference across age groups for each of the three years 1988-1989, 1989-1990, and 1990-1991 meaning a differential rate of eligibility and provision of additional services exists. The first year's data did not yield a statistically significant chi-square value.

**Gender.** An alternating pattern existed in the proportion of referrals among males and females during the four years of the study. The first year, 1987-1988, females were somewhat more likely to be referred than males. This result was reversed the following year, 1988-1989, when males were evidenced more frequently (2%) than they were in the total college population. Females were underrepresented by the same amount. For the next two studies, 1989-1990 and 1990-1991, the result reversed again with females being overrepresented by a little over one percent.

Among the eligible students the percents for both genders closely parallels the percentages of referred students. Similarly, among the students receiving added services the gender percentages again were comparable to the referral percentages. This similarity means that once particular students, male or female, were referred from the general college population, they tended to maintain the same proportional representation through the next steps of eligibility and added

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**Table 4** Statistical Relations Among Age, Gender, and Ethnic Characteristics by Eligibility and Additional Services Outcomes

1987-1988						
Eligibility				Additional Services		
Grouping Factor	Chi-Square	Cramer's V	Effect Size(%)	Chi-Square	Cramer's V	Effect Size(%)
Age	9.20	.03	3.50	-	-	-
Gender	42.00*	.07	7.50	-	-	-
Ethnicity	71.79*	.10	10.00	-	-	-
1988-1989						
Eligibility				Additional Services		
Grouping Factor	Chi-Square	Cramer's V	Effect Size(%)	Chi-Square	Cramer's V	Effect Size(%)
Age	28.41*	.05	5	12.15**	.03	3
Gender	29.98*	.05	5	31.15*	.06	5
Ethnicity	81.53*	.09	5	28.29*	.05	5
1989-1990						
Eligibility				Additional Services		
Grouping Factor	Chi-Square	Cramer's V	Effect Size(%)	Chi-Square	Cramer's V	Effect Size(%)
Age	51.28*	.05	6.82	34.35*	.04	5.58
Gender	52.55*	.07	6.90	9.41*	.03	2.92
Ethnicity	116.02*	.07	10.25	42.57*	.04	6.21
1990-1991						
Eligibility				Additional Services		
Grouping Factor	Chi-Square	Cramer's V	Effect Size(%)	Chi-Square	Cramer's V	Effect Size(%)
Age	68.42*	.05	7.57	43.57*	.04	3.50
Gender	53.49*	.07	6.69	14.67*	.04	6.04
Ethnicity	84.86*	.06	8.43	26.40**	.03	4.70

Note: \*Statistically significant with  $p < 0.001$

\*\*Statistically significant with  $p < 0.05$

services. The calculated differences were less than one percent for any group. The chi-square statistic did detect a reliable difference between males and females for each of the three years 1988-1989, 1989-1990, and 1990-1991 meaning a differential rate of eligibility and provision of additional services was conditional upon a student's gender. This small difference of percentages illustrates the sensitivity of chi-square to detecting statistical significance.

**Ethnicity.** For each of the four years of the study, marked differences were observed between the number of students in a particular ethnic group who initiated a referral and the actual prevalence of that group in the total student population. This difference means that two ethnic groups, for example (a) Native American/Alaskan and (b) Filipino, may represent small percentages of the total student population but the referral rate for the former ended up five times as high as the rate for the latter. This difference reflects an overrepresentation of the Native American/Alaskan group and an underrepresentation of the Filipino group.

Among the eligible students the percents for each ethnic group closely parallels the percentages of referred students. Similarly, among the students receiving added services the group percentages again were comparable to the referral percentages. This means that once members of a particular ethnic group initiated a referral, the group tended to maintain the same proportional representation through the outcomes of eligibility and added services. The calculated differences were not more than three percent for any group. Just as with age and gender groupings, the chi-square statistic did detect a reliable difference across ethnic groups for each of the three years 1988-1989, 1989-1990, and 1990-1991 meaning a differential rate of eligibility and provision of additional services was conditional upon a student's ethnicity. For the years 1989-1990 and 1990-1991 the effect size for eligibility was quite small. Thus, to some minor degree, eligibility may be attributed to one's ethnic membership.

### Issues

In summary, the data provide a similar pattern across the four years of the study. The number of students from each age group tends to be in the same proportion to their prevalence in the general college population except for the 50-over group which under-refer and the 18 and 19-year old age groups which over-refer. Once an age group starts the eligibility assessment, however, they maintain the same proportion through eligibility and added services as any other age group.

In regard to gender, an alternating pattern of representation was noted from year to year for referral of males and females. The difference, however, was never more than 2%. Once referred, both groups maintained similar proportions for eligibility and added services.

The analyses of differences among ethnic groups provided the most striking patterns. Marked differences in referral rates were noted for certain groups. These differences were demonstrated by comparing the number of referrals and the prevalence of the ethnic group in the total college population. Once again, as with age and gender, once a referral group was established, no noteworthy differences were found across ethnic groups in terms of eligibility or added services.

Three issues are important to understanding the LD eligibility model and efforts to ensure its quality and excellence for the community college system. These three issues are described below

**Standard for a fair eligibility model.** One of the issues confronted in developing this report was the difficulty of selecting an acceptable standard for evaluating the outcomes. Some concerns that sparked the study was that the eligibility model was flawed by being unfair to different segments of the community college population. Three different statistics were selected to analyze patterns in the data and yet someone might argue that the three measures were flawed. Lacking a clearly described definition of "fairness" or "unfairness," the intent was to look at the data from different



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perspectives, which the use of different statistics permitted. As the issue of fairness is discussed more fully, additional analyses and discussions might be made of the data. From our perspective, the LD eligibility model looks fair.

**LD Model Development Study.** The Chancellor's Office is currently involved in a study regarding the LD eligibility model. This study involves over 1100 students and will (a) evaluate new revisions and alternative measures of a student's ability and achievement, (b) provide a basis of revising the eligibility components, and (c) update the model based on the diversity of the students' characteristics. Based on the results the LD specialists will have additional procedures that they might use in evaluating a student's academic achievement and potential for achievement. These measures would be particularly valuable for students whose expressive language proficiencies are more limited. Other procedures being researched would be more appropriate to those students whose academic skills are above average, but still significantly less than their estimated aptitude for achievement.

**LD assessment costs.** Learning disabilities is the only categorical disability in which the actual assessment is completed by the colleges. For other disability areas, eligibility is determined generally from assessment completed by other agencies e.g., Department of Rehabilitation, K-12 schools, regional centers, or private consultants or businesses. The individual assessment process is expensive for colleges because of the expertise and time required. The issue is that presently colleges receive funding only for those students who are judged eligible. This practice is particularly significant in light of the increased numbers of referred students noted over the four years of the study.

This overview of three basic issues illustrate still other complexities of providing meaningful services to students with LD in an equitable and consistent manner. The Chancellor's Office will continue to work with the colleges to address these issues and monitor the LD eligibility models' outcomes.

### References

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- SYSTAT Inc. (1989). SYSTAT Intelligent Software. Evanston, IL : SYSTAT Inc.

## **DEPARTMENT OF REHABILITATION**

### **MISSION AND GOALS STATEMENT**

#### **MARCH 1992**

#### **MISSION**

The mission of the Department of Rehabilitation is to assist people with disabilities, particularly those with severe disabilities, in obtaining and retaining meaningful employment and living independently in their communities. The Department develops, purchases, provides and advocates for programs and services in vocational rehabilitation, habilitation and independent living with a priority on serving persons with all disabilities, especially those with the most severe disabilities.

#### **GOALS**

- 1) In an attempt to break down commonly-held myths, the Department will consistently communicate a positive message about people with disabilities by actively referring to people with disabilities with proper language which promotes equality, self-determination, independence, dignity and full participation.
  - a) Develop and maintain an effective communication system that informs the general public, consumers, business community and others regarding the capabilities and achievements of people with disabilities.
  - b) Create events and programs targeted for selected groups to promote a greater understanding of people with disabilities.

- c) Expand awareness efforts through positive public relations portraying people with disabilities as tax-payers engaged in significant activities rather than tax-consumers.
  - d) Produce and disseminate updated and appropriate brochures, videos and other marketing tools necessary to promote people with disabilities and the Department of Rehabilitation.
- 2) In concert with the Governor's "prevention" agenda, the Department will promote meaningful employment and independent living concepts for all people with disabilities, particularly Department of Rehabilitation consumers with the most severe disabilities, to reduce long-term dependence.
- a) Plan for and support vocational and career opportunities for consumers with an emphasis on viable career development paths.
  - b) Develop and implement strategies to increase the vocational, social and personal independence of persons with disabilities, with a particular emphasis on persons with severe disabilities.
  - c) Train and support counseling staff in the development of rehabilitation plans that promote personal independence, social participation and career-related vocational goals.
  - d) Insure that services provided result in positive outcomes and are consistent with the Administration's prevention policy agenda.
  - e) Increase rehabilitation services to Supplemental Security Income/Social Security Disability Insurance recipients to reduce their dependence on public assistance.

- f) Promote continued transition of individuals with developmental disabilities from sheltered workshops to supported employment through Vocational Rehabilitation/Work Activity Program and Supported Employment activities.
  - g) Develop cooperative programs with the Departments of Mental Health, Alcohol and Corrections to match all available federal dollars for services to targeted populations.
  - h) Develop and provide information to persons with severe disabilities concerning methods to prevent the onset of secondary disabilities.
- 3) The Department will encourage people with disabilities, and consumer advocacy organizations, to be full partners in the Department's policy-making process.
- a) Promote consumers to full partners in the development of their rehabilitation and independent living plans.
  - b) Assure that consumers are provided appropriate and quality services on a consistent basis.
  - c) Establish key Department advisory committees, including the Blind, Deaf, Independent Living and Rehabilitation advisory committees, with substantial consumer representation.
  - d) Encourage and support consumer participation in the policy-making process through the removal of communication barriers by consistently using readers, interpreters, facilitators as well as braille, large print and other accessible media.

- e) Assure that the rights of consumers are protected through timely and objective administrative review and fair hearing proceedings. Inform consumers of their rights frequently during the rehabilitation process.
  - f) Provide complete, consistent and timely access information through increased involvement of the Community Access Program.
  - g) Sponsor an annual consumer conference and conduct "Town Hall" meetings to solicit broad consumer input into departmental policies and practices.
  - h) Serve as a conduit of information between the Administration and consumers and their advocacy organizations.
- 4) The Department will develop an amiable relationship with the business community in pursuit of meaningful employment and independent living opportunities for people with disabilities.
- a) Identify current employer problems and concerns to assist the Department in its efforts to place people with disabilities in meaningful jobs.
  - b) Provide employers with information about the services and assistance available through the Department.
  - c) Work in cooperation with the Governor's Committee for the Employment of Persons with Disabilities on initiatives to develop greater and more meaningful employment opportunities for people with disabilities.
  - d) Establish an Employer's Advisory Committee to facilitate formal input into Department policy, procedures and program operations.

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- d) Develop effective and efficient mechanisms for linking employers with consumers, such as through an employment registry.
- 5) The Department will develop partnerships with education institutions to strengthen the link between school and work for people with disabilities.
- a) Develop cooperative programs with schools, colleges, universities, and other local education agencies to match all available federal dollars for services to targeted populations.
  - b) Through education, facilitate long-term career development for people with disabilities
  - c) Increase coordination across all Transition Programs with education agencies to facilitate an effective and efficient continuum of services.
  - d) Consolidate cooperative advisory committees to more effectively and consistently work with educational institutions.
  - e) Develop jointly sponsored programs with the universities to direct people with disabilities toward teaching careers as one step to address the significant faculty shortage California faces.
  - f) Assist the rehabilitation counseling programs in California's universities to increase the diversity of potential counselors as well as the quality and quantity of rehabilitation counselors seeking employment with the Department.
  - g) Establish strong linkages between the Department, educational agencies and the business community.



- 6) The Department will identify and encourage the development of quality, effective and efficient service to facilitate the independence and employment of consumers.
  - a) Survey consumers and appropriate Department staff to identify critical services for consumers.
  - b) Provide technical assistance and implement strategies to assist providers in the effective operation of their facilities.
  - c) Continue ongoing educational programs on a statewide basis to ensure appropriate and timely service delivery to consumers through service provider organizations.
- 7) The Department will establish and implement a comprehensive assistive technology plan to guide the Department in providing necessary technology for meaningful employment and independent living for people with disabilities.
- 8) The Department will serve as the lead agency in California's efforts to implement the Americans with Disabilities Act by providing education, training, and technical assistance to businesses, state and local agencies and disability organizations.
  - a) Establish an ADA Implementation Unit with five new staff positions to provide information and assistance on program and physical access requirements to ensure compliance with the Americans with Disabilities Act.
  - b) Establish local resource persons to conduct workshops and training sessions regarding the requirements, impact, and enforcement of the ADA.
  - c) Develop brochures, pamphlets and other printed material for distribution to employers, consumers and other groups.

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  - c) Develop brochures, pamphlets and other printed material for distribution to employers, consumers and other groups.

- d) Design and implement an aggressive statewide promotional campaign to address major concerns of employers, persons in the disability community and the general public.
  - e) Research, write and produce a video highlighting aspects of accessibility, including architectural and programmatic barriers.
- 9) The Department will assist in the development of role models and youth leadership within the disability community.
- a) Develop integrated peer group programs for youth with disabilities to enable them to demonstrate school and community leadership and to initiate the transition to the adult world of social participation, career exploration and career development.
  - b) Remove stereotypes and attitudinal barriers early in life by supporting the youth training and development efforts of Project Interdependence.
  - c) Co-sponsor and play a key role in the Disabled Youth Leadership Conference, sponsored by the Governor's Committee for Employment of Persons with Disabilities, scheduled for August.
  - d) Recognize outstanding professionals with disabilities and community leaders through the annual Governor's Hall of Fame ceremony.
- 10) The Department will improve the quality of service to consumers through a commitment to long-term planning and increased professionalism for all Department personnel.
- a) Initiate a comprehensive organizational review of the Department to assess the utilization of all Department staff resources.

- b) Build a participatory management team which is diverse in terms of disability, gender and ethnicity.
- c) Reduce bureaucratic obstacles that prevent counselors from providing quality services.
- d) Increase the effectiveness of program outcomes through an integrated team approach with an emphasis on consumer involvement and direction.
- e) Support in-service training and continuing education efforts to upgrade the qualifications and skills of all Department personnel.
- f) Develop new measures to evaluate program effectiveness instead of the annual totals of new plans and rehabilitations.
- g) Modernize and streamline Department financial planning, fiscal monitoring and accountability.

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Department of Rehabilitation *Mission and Goals Statement, March 1992.* Sacramento: The Department, March 1992 (Reproduced in Appendix G to this report)

Intersegmental Planning Committee on Assembly Concurrent Resolution 3 *Expanding Educational Opportunities for Students with Disabilities A Report to the Governor and Legislature by the Intersegmental Planning Committee on Assembly Concurrent Resolution 3* Published for the Committee by the California Postsecondary Education Commission as Commission Report 86-38 Sacramento California Postsecondary Education Commission, December 1986

University of California *Report to the Legislature on Assembly Bill 746 Services to Students with Disabilities* Oakland Office of the President, February 14, 1992 (reproduced in Appendix B to this report)

# CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature

## Members of the Commission

The Commission consists of 17 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. Six others represent the major segments of postsecondary education in California. Two student members are appointed by the Governor.

As of February 1995, the Commissioners representing the general public are

Henry Der, San Francisco, *Chair*  
C. Thomas Dean, Long Beach  
Elaine Alquist, Santa Clara  
Mim Andelson, Los Angeles  
Jeffrey I. Marston, San Diego  
Guillermo Rodriguez, Jr., San Francisco,  
*Vice Chair*

Melinda G. Wilson, Torrance  
Linda J. Wong, Los Angeles  
Ellen F. Wright, Saratoga

Representatives of the segments are

Roy T. Brophy, Fair Oaks, appointed by the Regents of the University of California.  
Yvonne W. Larsen, San Diego, appointed by the California State Board of Education.  
Alice Petrossian, Glendale, appointed by the Board of Governors of the California Community Colleges,  
Ted J. Saenger, San Francisco, appointed by the Trustees of the California State University, and  
Kyhl Smeby, Pasadena, appointed by the Governor to represent California's independent colleges and universities, and  
*vacant*, representing the Council for Private Postsecondary and Vocational Education

The two student representatives are

Stephen Leshner, Meadow Vista  
Beverly A. Sandeen, Costa Mesa

## Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including community colleges, four-year colleges, universities, and professional and occupational schools.

As an advisory body to the Legislature and Governor, the Commission does not govern or administer any institutions, nor does it approve, authorize, or accredit any of them. Instead, it performs its specific duties of planning, evaluation, and coordination by cooperating with other State agencies and non-governmental groups that perform those other governing, administrative, and assessment functions.

## Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, its meetings are open to the public. Requests to speak at a meeting may be made by writing the Commission in advance or by submitting a request before the start of the meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its executive director, Warren Halsey Fox, Ph.D., who is appointed by the Commission.

Further information about the Commission and its publications may be obtained from the Commission offices at 1303 J Street, Suite 500, Sacramento, California 95814-2938, telephone (916) 445-7933 or Calnet 485-7933, FAX (916) 327-4417.

# SERVICES FOR STUDENTS WITH DISABILITIES IN CALIFORNIA PUBLIC HIGHER EDUCATION

## California Postsecondary Education Commission Report 92-21

ONE of a series of reports published by the Commission as part of its planning and coordinating responsibilities. Additional copies may be obtained without charge from the Publications Office, California Postsecondary Education Commission, 1303 J Street, Fifth Floor, Sacramento, California 95814-2936

Recent reports of the Commission include.

- 92-4** Prospects for Long-Range Capital Planning in California Public Higher Education: A Preliminary Review. A Staff Report to the California Postsecondary Education Commission (January 1992)
- 92-5** Current Methods and Future Prospects for Funding California Public Higher Education. The First in a Series of Reports on Funding California's Colleges and Universities into the Twenty-First Century (March 1992)
- 92-6** Commission Comments on the Systems' Preliminary Funding Gap Reports. A Report to the Legislature and the Governor in Response to Supplemental Report Language of the 1991 Budget Act (March 1992)
- 92-7** Analyses of Options and Alternatives for California Higher Education: Comments by the Staff of the California Postsecondary Education Commission on Current Proposals for Change in California's Public Colleges and Universities (March 1992)
- 92-8** Faculty Salaries in California's Public Universities, 1992-93. A Report to the Legislature and Governor in Response to Senate Concurrent Resolution No 51 (1965) (March 1992)
- 92-9** Fiscal Profiles, 1992. The Second in a Series of Handbooks about the Financing of California Postsecondary Education (March 1992)
- 92-10** Student Profiles, 1991. The Second in a Series of Annual Factbooks About Student Participation in California Higher Education (March 1992)
- 92-11** Meeting the Educational Needs of the New Californians: A Report to Governor Wilson and the California Legislature in Response to Assembly Concurrent Resolution 128 (1990) (March 1992)
- 92-12** Analysis of the 1992-93 Governor's Budget. A Staff Report to the California Postsecondary Education Commission (March 1992)
- 92-13** Postsecondary Enrollment Opportunities for High School Students. A Report to the Legislature and the Governor in Response to Chapter 554, Statutes of 1990 (June 1992)
- 92-14** Eligibility of California's 1990 High School Graduates for Admission to the State's Public Universities. A Report of the 1990 High School Eligibility Study (June 1992)
- 92-15** Progress of the California Science Project. A Report to the Legislature in Response to Chapter 1486, Statutes of 1987 (June 1992)
- 92-16** Supplemental Report on Academic Salaries, 1991-92. A Report to the Governor and Legislature in Response to Senate Concurrent Resolution No 51 (1965) and Supplemental Language to the 1979 and 1981 Budget Acts (August 1992)
- 92-17** A Framework for Statewide Facilities Planning: Proposals of the California Postsecondary Education Commission to Improve and Refine the Capital Outlay Planning Process in California Higher Education (August 1992)
- 92-18** Guidelines for Review of Proposed University Campuses, Community Colleges, and Educational Centers. A Revision of the Commission's 1990 *Guidelines for Review of Proposed Campuses and Off-Campus Centers* (August 1992)
- 92-19** Approval of the Lemoore Center of the West Hills Community College District: A Report to the Governor and Legislature in Response to a Request from the Board of Governors to Recognize the Center as the Official Community College Center for the Lemoore/Hanford Area of Kings County (August 1992)
- 92-20** Commission Comments on the Systems' Final Funding Gap Reports. A Second Report to the Legislature and the Governor in Response to Supplemental Report Language of the 1991 Budget Act (August 1992)
- 92-21** Services for Students with Disabilities in California Public Higher Education, 1992. The Second in a Series of Biennial Reports to the Governor and Legislature in Response to Assembly Bill 746 (Chapter 829, Statutes of 1987) (August 1992)
- 92-22** Exchanging Students with Eastern Europe: Closing a Half-Century Learning Gap. A Report to the Governor and Legislature in Response to Assembly Concurrent Resolution 132 (Resolution Chapter 145, Statutes of 1990) (August 1992)
- 92-23** 1992-93 Plan of Work for the California Postsecondary Education Commission. Major Studies and Other Commission Activities (August 1992)